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"TRY IT, MAKE IT BETTER, PERFECT IT": IMPLEMENTING A STATEWIDE TEXTBOOK AFFORDABILITY INITIATIVE

Shanna Smith Jaggars
Kaity Prieto
Amanda L. Folk
Marcos D. Rivera
Elizabeth K. Hance
e alexander

The Ohio State University

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EXECUTIVE SUMMARY

This report focuses on the Ohio Open Ed Collaborative ("OOEC"), a statewide initiative which recruited and supported inter-institutional teams of faculty to develop open and affordable college course materials. Across its first two years, OOEC developed 23 freely-available modular course packages that were aligned to statewide learning outcomes, and were designed to be engaging and appropriate for students of diverse backgrounds attending two-year and four-year colleges and universities across the state. In this report, we focus on OOEC's structure, its first two years of implementation, and early indicators of OOEC package adoption, in order to provide other regional or statewide collaborative approaches with concrete examples for good practice, as well as "lessons learned" and opportunities for improvement. We also examine motivators and barriers to adoption among instructors across the state.

Results suggest that instructors who developed course packages found the project rewarding due to its inter-institutional and collaborative nature. A clear division of team roles helped most teams work together well, and instructors were generally pleased with their team's final product. However, teams wished they had more time and resources to support their work, and were concerned about whether their team's course package would be properly updated and maintained over time.

In terms of adoption of OOEC course packages, instructors were motivated by the prospect of saving money for their students, as well as the ability to have more control over course materials. In contrast, the key barriers to adoption were the time and effort involved, particularly if the instructor's current textbook was already adequate or even perceived as superior to available OER options. While cost savings were important to all types of instructors across disciplines, faculty were more divided on their consideration of the remaining motivations and barriers. For experienced instructors who taught in the social sciences, the benefits of OER seemed to outweigh its challenges. However, for instructors in other fields, the potential benefits seemed less valuable; and for departments in which large proportions of students are taught by less-experienced or overstretched part-time faculty, the costs of OER in terms of instructor time and effort seemed potentially infeasible.

Finally, familiarity with the OOEC package was related to adoption plans. Among instructors who were interested in OER but had no plans to adopt the OOEC package, most said they were not familiar enough with the OOEC materials to implement them. Among instructors who reviewed their course's OOEC package, over half rated it as higher-quality than the average textbook, and nearly half of those planned to adopt it. Potential adopters seemed most highly influenced by colleagues within their own institution. However, few colleges mounted a strong and systematic push for adoption of OOEC packages in specific or OER in general, although many provided encouragement or support for faculty who were already interested in adoption.

If Ohio can maintain and update its OOEC packages over time, and leverage state policies and resources to expand instructor familiarity with the materials, then adoption is likely to spread slowly but steadily across departments and colleges. Providing statewide resources to support adoption could speed and strengthen this spread. However, if formal processes are not put in place to support maintenance, familiarity, and adoption, then OOEC materials may have little long-term impact on textbook affordability across the state.

INTRODUCTION

As the cost of traditional textbooks has increased, higher education institutions and consortia have launched a variety of projects to promote the development and adoption of open and affordable learning materials. Well-known examples include Open Oregon and Affordable Learning Georgia, both of which encourage instructors to adopt open and affordable course materials through grants and professional learning opportunities. Typically, consortia incentivize and support individual instructors in their development or adoption efforts and encourage these instructors to be champions for affordable learning within their own colleges or national disciplinary organizations. By going a step further and engaging instructors in partnership across institutions, consortia can more evenly distribute the individual efforts required to develop and promote OER and other affordable course materials.

This report focuses on the Ohio Open Ed Collaborative ("OOEC"), a statewide initiative which focused on inter-institutional team-based development and adoption of affordable course materials. With funding from the Ohio Department of Higher Education ("ODHE"), OOEC's approach was explicitly designed to coordinate with and support other state-sponsored inter-institutional efforts regarding curricular alignment, affordability, and innovation in higher education. For example, in selecting courses for OER development, OOEC focused on courses that are critical to the seamless transfer of credit between the state's community colleges and four-year institutions. Across its first two years, OOEC developed 23 freely-available modular course packages that were aligned to statewide learning outcomes, and were designed to be engaging and appropriate for students of diverse backgrounds attending two-year and four-year colleges and universities across the state.

In this report, we focus on OOEC's structure, its first two years of implementation, and early indicators of OOEC package adoption, in order to provide other regional or statewide collaborative approaches concrete examples for good practice, as well as "lessons learned" and opportunities for improvement. First, we provide an overview of OOEC's structure, timeline, and process. For interested practitioners, accompanying appendices provide concrete examples for each piece of the process, which may be freely re- used or adapted. Second, we examine "what worked well" and what could be improved about the process, from the perspective of instructors who participated on OOEC content teams. Third, we examine motivators and barriers to adoption among non-adopting instructors across the state.

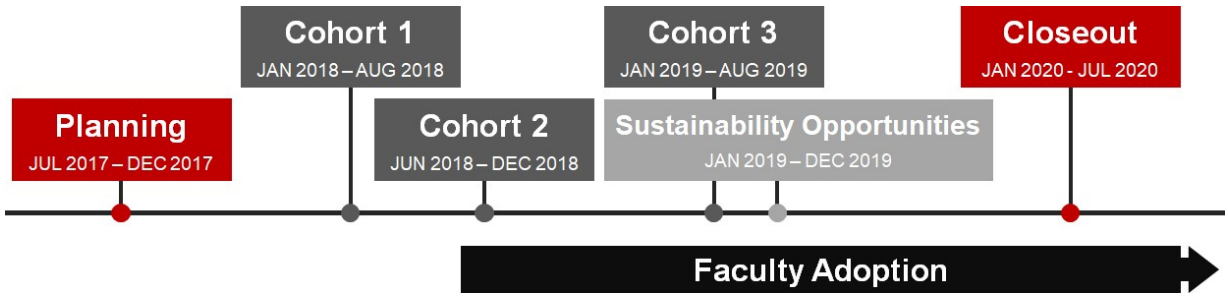
OOEC STRUCTURE, TIMELINE, AND PROCESS

OOEC was initiated through a $1.3 million ODHE Innovation Grant awarded in 2017.[1] The larger goal of the Innovation Grant program is to promote educational excellence and economic efficiency throughout the state, with a particular focus on improving the affordability of a college degree for Ohio residents. The OOEC grant aimed to reduce the cost of current textbooks by at least 70% percent in high-enrollment courses, and to foster statewide faculty innovation and collaboration, particularly around issues of affordability, access, and educational excellence. OOEC was led by a statewide steering committee including representatives from community colleges, a private university (Ohio Dominican University), a public university (The Ohio State University), a statewide association (the Ohio Association of Community Colleges), and a statewide library consortium (OhioLink).

In the sections below, we provide the overall timeline for OOEC's initial work, and then discuss its processes for course selection, content team selection and management, outreach and promotion, and long-term sustainability.

Overall Timeline

Figure 1 provides an overall timeline of OOEC's work across its first two years. The steering committee began its planning in July 2017. During its initial monthly meetings, the committee selected courses for OER development, developed a process for selecting instructors and librarians to participate on the course content teams, determined guidelines for compensation of team members, and planned kickoff events. The first cohort of course content teams began their work January 2018. The second and third cohorts began their work in June 2018 and January 2019, respectively. Each cohort took approximately 8 months to complete their work. Meanwhile, the steering committee created outreach and promotion strategies, implemented regional workshops, and created grant programs to incentivize institutions to adopt OOEC materials. The steering committee shifted their focus to promoting adoption and sustainability planning in January 2019.



[1] Initially ODHE received three distinct proposals focusing on textbook affordability from North Central State College (in collaboration with the Ohio Association of Community Colleges, on behalf of 15 community colleges), Ohio Dominican University, and The Ohio State University. Rather than fund each of these individual proposals, ODHE challenged the three applicants to work collaboratively to support the curation and/or creation of high-quality, peer-reviewed OER and other affordable learning materials through a single grant, led by North Central State College. OhioLINK, a consortium that supports college and university libraries across the state of Ohio, also joined to provide expertise and support. OOEC is the result of this collaboration. See Appendix A for a complete list of partnering institutions.

Course Selection

In selecting courses for development, the steering committee prioritized courses with the following characteristics: (1) the course enrolled thousands of students each year across the state; (2) the course was offered at most two-year and four-year colleges across the state; (3) the course was commonly taught as part of the state's high school dual-enrollment program (College Credit Plus, or "CCP"); and (4) the course was included in the state's transfer articulation agreements (see Box A). The committee identified 20 courses which each met most (if not all) of the four characteristics; typically, these courses fulfilled general education requirements or were introductory-level courses within popular majors. In addition, the committee identified three higher-level mathematics courses which, although they had fewer offerings and enrollments across the state, were key gatekeepers into highly-remunerative STEM majors and would benefit from a more innovative teaching approach.[2]

Courses with high enrollment at both two-year and four-year institutions across the state were appealing not only because of their potential for impact in terms of cost-savings for students, but also because the OOEC materials could be mapped to common learning objectives developed at the state level, as discussed in Box A. In turn, the development of affordable learning materials mapped to the existing common learning objectives might reinforce consistency in the depth and quality of instruction in these courses across institutions.

In parallel with the course selection process, the steering committee wrestled with the definition of "open and affordable materials." If OOEC restricted its content to only materials which were formally designated with an OER-style open license, then large amounts of high-quality and freely-available material would be excluded, which in turn might make it difficult or infeasible to curate affordable course packages for courses in particular disciplines. For example, Ohio had invested considerable resources in licensing library materials for use by students across the state, and it seemed counterproductive to exclude those materials from consideration. Ultimately, OOEC determined that "open and affordable materials" could include but were not limited to open educational resources (OERs), library materials available to students across Ohio through statewide consortia licensing agreements, and links to copyrighted materials freely available on the Internet.[3]

As they identified courses for content development, the steering committee considered how to sequence the development of all 23 courses across two years. To distribute effort across time, the committee divided courses into three sequenced cohorts, with each cohort following an approximately 8-month timeline for development. This division would allow the committee to pilot their initial ideas with the first cohort, and learn lessons which could be applied to later cohorts.

[2] For the list of 23 OOEC courses, see Appendix B. Note that items listed as "I & II" represent two separate courses (e.g., English Composition I and English Composition II).

[3] As copyrighted content, these freely-available materials could not be reproduced or altered but could be accessed by students via a link to the content provider.

Box A. The Ohio Transfer Module (OTM) and Transfer Assurance Guides (TAGs)

In 1990, Ohio created the Ohio Transfer Module (OTM), or a set of general education courses which are guaranteed to transfer across Ohio's public institutions. For example, the First Writing Course (often known as English Composition I) transfers seamlessly across the state. In 2005, the state began creating Transfer Assurance Guides (TAGs), or a set of pre-major or introductory major-specific courses which are similarly guaranteed to transfer.

To ensure consistency in the content of these courses across colleges, statewide faculty panels meet twice per year to define learning outcomes for new TAG/OTM courses or update learning outcomes for existing courses, as necessary. Defined learning outcomes are sent to Ohio public colleges for feedback and endorsement. Colleges submit their own relevant courses for approval as equivalent to a particular TAG/OTM course; typically, a minimum of 70% congruence between the state- specified learning outcomes and a specific college's course learning outcomes is required for equivalency. TAG/OTM courses are each identified with a statewide course number, which is mapped onto institution-specific course numbers, thus allowing for seamless processing of each course at the point of transfer. The TAG/OTM system is rooted in state legislation and is coordinated by ODHE. For more detailed information, see https://www.ohiohighered.org/transfer/policy

Content Team Selection and Management

For each course, OOEC materials were developed by a "content team" of faculty representing Ohio's 2-year and 4-year colleges and universities, both public and private. Each team had a lead, several faculty members with the relevant expertise and instructional experience to select and create content, a librarian to support the work of the team, and two peer reviewers who were also expert faculty.[4] A dedicated project manager supported each content team and reported directly to the steering committee. Below, we first outline the roles within each content team; we then describe how each type of role was recruited, selected, and compensated; and finally we describe the typical team's process and deliverables.

[4] Typically, a given individual did not serve on multiple content teams simultaneously, though many individuals did serve on a second content team after completing their work with a first team. The primary project manager was appointed full-time on the grant and managed most of the teams; two additional project managers served in part-time roles, and each managed a smaller number of teams.

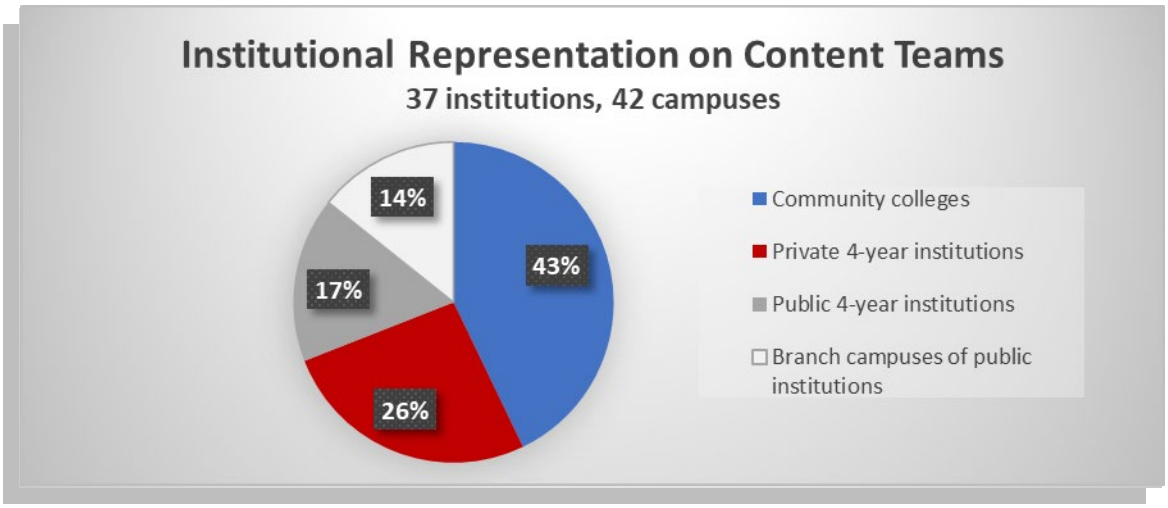
Roles

Project managers	Project managers supported teams primarily through accountability – by clarifying expected outputs and deadlines and by making members aware of the tasks involved in developing content for their respective course packages. Project managers coordinated check-in meetings with team members, and regularly reported team progress and updates to the steering committee. The project managers had experience in instructional design and delivery, but were not content experts, which helped to create separation between package development (the responsibility of team leads and team members) and ensuring alignment with overall grant expectations (the responsibility of project managers).
Team leads	Team leads were expert faculty members who coordinated and supported the work of their team. Team leads supported their members in various ways: facilitating team discussions regarding what topics or materials to include in alignment with statewide learning outcomes; assigning specific tasks to team members and holding them accountable for those tasks; showing members how to use software and platforms; creating templates for the entire team to use in support of consistency; and interfacing with project managers when challenges arose. Team leads participated in both content development and review, and held dual roles as content experts and informal project managers.
Team members	Team members were instructors who were deeply familiar with course content, and had typically taught the course multiple times. Under the direction of their team leads, members curated lessons, exercises, and activities to support the learning objectives of their courses. In most cases, the process entailed searching for and reviewing existing resources, and occasionally writing original content, in cases where they could not find existing high-quality materials that were freely available to students in Ohio. Team members also reviewed other team members' chapters and modules for information accuracy and consistency across topics.
Librarians	College and university librarians often help instructors navigate digital search, copyright, licensing, and accessibility issues. Large four-year colleges and universities also typically employ "subject-area librarians," who work with specific disciplines or departments and have expertise in those specialized content areas. Each team was thus assigned a subject-area librarian, who could create strategies to find potential materials based on common learning outcomes, organize the information content teams were finding and reviewing, and answer questions about what materials were available through the state's library consortium.
Peer reviewers	Peer reviewers were similar in background to team leads or team members; typically, they were interested in the project but did not have the time to participate as a lead or team member. They reviewed the content of their assigned courses after initial curation, and offered feedback to the team leads and members on areas to improve ahead of publishing.

Team Recruitment, Selection, and Compensation

The recruitment and selection processes were competitive. Interested instructors and librarians submitted an application, a curriculum vitae (CV) or resume, and a letter of support from a dean or department chair.[5] In total, over 300 applications were received. The steering committee reviewed and discussed each application and selected participants based on disciplinary and course-specific expertise, articulated interest or experience in adopting open or affordable materials, and a balance of institutional representation. Team leads were chosen from applicants who expressed an interest in the role and had the strongest combination of disciplinary expertise, experience with content development, and experience with team facilitation or management. In total, 119 instructors and librarians were selected to serve on the content teams, 18 of whom participated on more than one team.[6] As Figure 2 shows, the teams represented 42 campuses across the state, with a mix of members from two-year, four-year, public, and private institutions.

Figure 2. Institutional Representation on Content Teams



As a gesture of appreciation for their time and expertise, each role received a baseline level of compensation: $500 for each course peer reviewer, $1,000 for each librarian, $1,500 for each content team member, and $2,000 for each team lead. To receive the baseline compensation, team members completed a “basic package” for their course: an initial proposal, a project plan based on the approved proposal, course objectives, a final report, and a Quick Adoption Guide.[7] If well-aligned and high-quality materials already existed which appropriately covered all of the course’s learning objectives and related instructor needs, then the OOEC course package simply consisted of the Quick Adoption Guide. However, this was a rare occurrence. In addition to the basic package, teams considered whether additional deliverables (i.e., “special projects”) were necessary for a well-aligned, high-quality, and user-friendly course. Special projects could include deliverables such as a 1,000-question test bank, a set of sample assignments, or the development of other ancillary materials. If content teams proposed, were approved, and created additional deliverables, they received additional compensation. Depending on the number of special projects and the level of effort involved, content team leads could receive up to $5,000 per course, and content team members could receive up to $4,500 per course.

[5] See Appendix C for a copy of the application form.

[6] Selected participants received an acceptance letter, Consultant Scope of Work, and invitation to the kickoff event (see Appendix D for the Consultant Scope of Work template, which includes compensation details). As the fiscal agent, North Central State College then created an e-contract for each participant to sign electronically.

[7] See Appendix D for more information on each component of the basic package.

Process and Deliverables

The overall process for each team is outlined in Box B. To kick off each team's work, participants engaged in a day-long in-person convening which reviewed project goals, deliverables, and expectations; provided an introduction to copyright and accessibility issues; and gave teams an opportunity to engage with one another, meet their librarian and project manager, and begin key first steps for their project.[8] For most teams, the kick-off meeting provided their only in-person interaction; subsequent meetings were held virtually and were facilitated by the project manager or team lead.

Box B. OOEC Team Process

OOEC teams typically carried out their project using the following process:

1. At a kick-off meeting, team members met in person, and learned more about their charge to develop course packages.

2. In virtual team meetings, members refined course learning outcomes, decided on materials and topics to include in alignment with those outcomes, solidified their Scope of Work, and assigned topics or projects to each member.

3. The team member in charge of a specific topic/task created or curated relevant materials with the assistance of team librarians.

4. Team members reviewed one another's materials, and edited their own materials based on feedback from fellow team members and external peer reviewers.

5. The team finalized course materials; upon approval from the steering committee, materials were published on the public microsite.

Each team's first deliverable was a Course Project Proposal, which included basic information about the team's project timeline and milestones, their meeting schedule, and any special projects.[9] In parallel, teams reviewed the state OTM/TAG learning objectives and determined whether additional objectives should be covered within the OOEC course.[10] After the steering committee approved the Course Project Proposal and the related level of compensation, the content teams began work. As each team member produced or curated content, their fellow team members provided review and feedback. Once every team member was satisfied with each key component of the package, they engaged their peer reviewer for feedback. After receiving feedback from the reviewer, teams addressed any concerns or incorporated useful suggestions into the final package.

When each course package was complete, it was published in a publicly-available OER repository. While many such repositories are available, OOEC opted to host its materials within an OOEC-dedicated "microsite" on OER Commons. OOEC decided to use OER Commons to host its materials because: there was no storage limit; instructors could browse, search for, and download potential course materials from the site and modify or remix them; instructors could comment on and review OOEC materials; and OOEC could customize and brand a microsite based on its specific needs.

[8] See Appendix E for a sample agenda.

[9] See Appendix F for the Course Project Proposal template.

[10] If the course did not already have OTM/TAG learning objectives, the team defined objectives for their course based on national disciplinary guidelines and/or their own past course syllabi.

Outreach and Promotion

Creating awareness of the OOEC materials proved to be a challenge, as instructors across the state are constantly inundated with information about various textbooks, materials, and teaching strategies, making it difficult for OOEC promotional materials to stand out. To promote the OOEC materials, the steering committee adopted a two-pronged strategy of in-person presentations and grant opportunities.

First, steering committee members and content team members pursued opportunities to talk about OOEC in-person at state, regional, and local conferences of instructors. In addition, OOEC organized four regional in-person workshops throughout Autumn 2019 for instructors who might be interested in OOEC adoption. Each workshop was held in a different region of the state and hosted by a local community college, in an effort to engage instructors at that college and others within an hour's drive. In each workshop, participants were introduced to the goals of the OOEC, toured OOEC's OER Commons microsite, and viewed the available course packages. Content team members also participated on panels to discuss their experiences with the OOEC, including adopting the materials, and answered workshop participants' questions. Although the workshops were well-received, attendance was low, with an average of 16 attendees per workshop.

Second, with the understanding that relatively few instructors might be reached through in-person conferences and workshops, the steering committee used a "mini-grant" process to encourage institutions to engage in wholesale promotion and support of OOEC materials among their instructors. OOEC offered two different mini-grant opportunities.[11] The first grant opportunity was for individual institutions, which could receive up to $6,000 by creating a clear plan for adoption of OOEC materials at their institution. The second opportunity was for two or more institutions working together, who could receive up to $15,000 to collaborate on initiatives leading to the adoption of OOEC materials.

In total, five mini-grants were awarded, including four individual institutional grants and one consortium grant. Each institution planned to encourage adoption of OOEC materials by targeting instructors of specific courses, or by targeting dual-enrollment instructors. The institutions planned several strategies to encourage adoption of OOEC materials among their target groups, including:

- **Developing and offering professional development opportunities to instructors about OER, during which the OOEC materials would be introduced;**
- **Providing support for the modification of OOEC materials and the development of new material, as needed, to facilitate adoption; and**
- **Creating resources of best practices related to the adoption of OER as course materials.**

[11] See Appendix G for the request for proposals and Appendix H for the "mini-grant"applications.

Sustainability and the Future of the OOEC

The initial grant funding for OOEC was for a two-year period. From the beginning, however, the steering committee was concerned about how the new materials would be maintained and updated after the close of the grant. In partnership with the funder, the steering committee worked to extend the timeline of the grant and re-allocate some of its funding towards longer-term promotion and adoption efforts, as well as sustainability planning. Three key areas for the re-allocated funding include: (1) Extending the contract with OER Commons and purchasing link-checking capabilities, which automatically flag broken links and allow for more efficient updating; (2) Hiring an instructional designer on a two-year contract to assist instructors across the state in adopting OOEC materials; and (3) Offering professional development webinars to support the promotion and adoption of OOEC materials. These webinars will highlight various kinds of expertise and will feature OOEC content team members who have adopted OOEC materials in their own courses. Most importantly, ODHE is exploring how to incorporate OOEC, including a regular review and update of the existing course packages, into the existing OTM/TAG review panel structure to ensure the relevance and currency of the content across the long term.

TEAM PROCESSES AND PRODUCTS: WHAT WORKED OR COULD BE IMPROVED?

In this section, we draw on 40 interviews with 38 OOEC stakeholders to understand the experience of participating on a statewide, multi-institutional content team, including "what worked well" and "what could be improved."[12] Interviewees included seven team leads, sixteen team members, seven librarians, nine reviewers, and one project manager. Instructors represented nine content teams including four in STEM, three in the social sciences, and two in the humanities. Below, we discuss participants' perspectives on project timelines and compensation; what worked well; lessons learned; and product quality.

Project Timelines and Compensation

In terms of the approximately eight-month timeline for course development, interviewees were divided in their opinions. Some felt the timeline was sufficient while others felt rushed. Those who felt the timeline was too short were disproportionately from teams that struggled with communication and/or organization. In general, instructors said the project required more nights, weekends, and summer hours than they had expected. For example, a team member in the social sciences explained:

> ***It took more time, perhaps, I would say 50% more time than I ever envisioned. I did not realize that it was going to take that much time. Given that I had a full-time job, I'm the chair of the division, it took my weekends. Whenever anything was due, it took my weekends.***

While most respondents were motivated by the project and reconciled to the unexpectedly high burden of time, the project was necessarily a second priority to their regular work, which could result in deadline slippage. As a team member in the humanities said:

> ***I think with all projects, there's always a time crunch at the end where we all felt rushed and it all happened towards the end of the summer when we were preparing for our courses… so I think just making sure that we have that flexibility in our deadlines [would be helpful].***

Of the few interviewees who mentioned compensation, all agreed that their time on the project vastly exceeded their compensation, such that they essentially "volunteered." As a team member in the social sciences said, "If you do it for the compensation, then you don't want to calculate in terms of hours spent on it." Although interviewees believed instructors deserved compensation for their labor, they also resolved to view their volunteerism as service to academia and the open education mission. As a reviewer in the social sciences explained:

[12] Two stakeholders were interviewed twice because they served in multiple roles or participated in multiple courses across time.

> ***I basically donated my time. I mean I got $500. I spent way more time. That's nothing. That was like a token. That was like a thank you. That didn't compensate me for my time. That's not why I did it. I didn't do it for the money. I wanted to make sure that I had an opportunity to contribute to the quality of this… If it's going to happen, I want to help make it as good as it can be.***

What Worked Well

Instructors enjoyed participating in the project and cited two factors in particular that worked well: team member expertise, enthusiasm, and mutual support; and the delegation of work tasks through distinct team roles. Below, we discuss each theme in more detail.

First, instructors appreciated the expertise and mutual support that fellow team members brought to the project, and the opportunity to collaborate with colleagues. As one team lead in STEM said:

> ***My team was very diverse. We had a software engineer on the team, my colleague [name]. We had an economist and we had another mathematician from a community college… And so, all of these amazing different experiences really shaped the project in a lot of ways.***

Similarly, a team member in the social sciences was excited about the connections she made with colleagues across the state:

> ***I'm really grateful and thankful for the opportunity to be a part of the grant… Now I have these colleagues that I've worked closely with on this project, that I feel like I could reach out to if I had questions about it or wanted to run something else by them, or just connections in terms of speakers to come on campus or other collaborations. I think that was kind of an unexpected bonus and benefit for having participated, are the connections that I made with other people.***

Second, the organization of teams into distinct areas of responsibility helped create clear processes for communication and delegation. Most teams divided the workload, with each team member assigned to work on their own piece of the project in parallel, and then came together periodically to review and refine each other's work. To support and keep them on track, team members highlighted the value of the project manager, who kept them accountable on their timeline and deliverables; their team lead, particularly if that person ensured an equitable division of work and provided clear communication; and their librarian, who helped identify potential materials and vet them in terms of copyright and accessibility issues. Comments illustrative of this theme included:

> ***I think we did a really good job. I'm really proud of what we produced. I think we worked really well together as a team. We all got done what we were supposed to do. We had great communication. We checked in, I would say, probably maybe once to twice a month with [the project manager]. She just kind of kept us rolling on what we were supposed to be doing, reminded us of the tasks we were supposed to be doing. We all took responsibility for what we were supposed to do, and we all got it done.***
> **–Team member in Social Sciences**

> ***Without [team lead], we probably would not have known, and especially initially, what our master project was going to be defined as. Because I think every one of us, when we first sat down together at this little conference at [the kickoff meeting], was still kind of in the dark as to what our final product was going to look like… She was clearheaded, and her communications were fabulous.*** **– Team member in Humanities**

> ***The content team librarian was actually extremely helpful, especially early on because I think she had already pulled together several resources. I remember when we did our bootcamp way back in, I guess that would have been January… she had already had several detailed resources and some of the books, and OER materials that were already out there. It made it, I think, a little bit easier for us. She was always extremely valuable once we did pull in the information, to go through and look at the accessibility piece. That was one less thing that we had to really worry about.***
> **– Team lead in Social Sciences**

Lessons Learned

Instructors identified several challenges and related lessons for future cohorts. First, a few teams experienced challenges due to frustrating team members. In a couple of cases, these team members had been pushed by their own college to participate, and did not have a strong intrinsic interest in the project. As a team lead in the humanities recalled:

> ***I had one team member though, that it was very clear that he did not want to be on this project. And so, sometimes it was like pulling teeth, trying to get stuff out of him. So, when I gleaned that early on, I just tried to make sure he had— we had some chapters that were kind of easier to do…I just tried to arrange it as much as I could for him to have those things to be responsible for. So, he wouldn't have to put in too much effort for something that I didn't gauge that he had the investment in.***

In other cases, frustration among team members was due in part to team leads who failed to ensure workloads were equitable, were unclear in terms of communicating expectations, or who shied away from managing team disagreements. For example, a team member in STEM recalled:

> ***Honestly, I feel the team lead was a little flustered at times… I mean I think he was doing the best that he could. I just don't know if there were other obligations going on, but in a lead role, I felt that he could have led a little bit better… I guess just to kind of ensure that everybody on the team is willing to do the same amount of work… I felt like there was a couple of team members that… "wow, I feel like I'm doing way more than they are."***

Second, several interviewees wanted clearer guidance from grant project leadership in terms of how to define and execute tasks, the time required for each task, the expected "look and feel" for the final product, or how that product would be presented in an online interface. As a team member in the humanities said:

> ***As we went through, one of the challenges we faced is we didn't know exactly what the end product would look like…. what the final user interface would be like… what [instructors] would see, how they would be able to integrate things, or how exactly a student would interact with the material.***

This theme was more common in some teams than others, perhaps because some team leads were more comfortable than others co-creating their team's vision for a final product and coordinating the path to that vision. For example, a team lead in the social sciences might have benefited from clearer guidelines from above, which could have helped resolve disagreements in a more constructive way*:*

> ***I think that was probably the most challenging, the way that those materials were evaluated. Our intention was to have a little description of each source and how it related to the learning objectives. Everybody's idea of what was a useful source was different. And in the end, we basically had to just agree to disagree. If it's useful for that particular instructor, then maybe it would be useful for somebody else.***

Third, team leads and team members wished they had more time, resources, and professional development to support their work, including professional development in terms of pedagogical and technological tools which could be integrated in the course package. As a reviewer in the social sciences said:

> ***It was a lot to ask of people, for very little compensation and very little resources, and I think you get what you pay for. I think everyone did the best job that they could with what they were given… I think that the team was terrific. They were wonderful people. It was difficult trying to get the quality of product that everyone would have liked to have with the time and resources that were available… I would recommend more professional development for the team up front… some content expertise and some pedagogical expertise that could contribute in different aspect of this process over time... Let's bring in some of these experts, but you're going to have to pay people. People aren't going to do this just for free.***

Fourth, some instructors commented that reviewers and librarians seemed too adjunct to the process, and should have been more centrally involved – for example, to be included in team communications starting prior to the kick-off and throughout the process, in order to support more team cohesion and to highlight their purposes within teams overall.

> ***I would definitely recommend keeping the librarian on and, if anything, I wish we would have been able to engage her sooner… the first go-around, nobody knew what they were doing. It took a long time to figure out what exactly we were supposed to do... Really, I didn't even know we had a librarian on our team until we first met [at the kick-off], and then I was like, "Oh, what are you doing?" That was a little bit tricky.***
> **– Team member in Social Sciences**

> ***I was happy to just review stuff that came to me, but I would have also been interested in having a little bit more say in exactly how stuff was written, how content was chosen. I guess just more inclusion into the process for reviewers.***
> **– Reviewer in STEM**

Finally, several participants suggested involving students throughout the process and soliciting students' feedback on the finished course package. As a team lead in the social sciences suggested:

> ***I think the other suggestion would be maybe even having some students involved to be able to see what the final product would look like and get from the student's point of view what they think about it. Because obviously coming from a faculty point of view, we say, "Oh yeah, these classes, and things like that, resources are great. This'll be great in our classroom." Until the students actually start interacting with the material, it would always be helpful to hear from the student's point of view, what they think of the final product and how it's actually being incorporated into their classes and things like that.***

Product Quality

Team members and reviewers were generally pleased with the course packages, which they felt were comprehensive, relatable, theoretically sound, had strong practical application to their respective fields, were accessible to students with disabilities, and were usable on a variety of devices including phones and tablets. In discussing the strengths and weaknesses of the OOEC products, interviewees raised three key points: appropriateness and adaptability for diverse audiences, cohesiveness, and maintenance. We discuss each point in more detail below.

First, respondents believed the materials were adaptable enough to be used by instructors across the state, and that students from a diversity of backgrounds, majors, and academic levels could engage meaningfully with the materials. As a reviewer in the social sciences explained:

> ***I think that a savvy instructor is going to use the best [material] that fits their population, and there's plenty there to tailor it to a particular population. And I think probably even more than that— I'm at a community college. I want my students to have the same things that a student at Ohio State or Penn State or any of the rest of them get. I demand that actually…We made sure that it was tied with the Ohio OTM TAG guidelines, the [professional organization guidelines], as well as the pillars of learning. We were very, very adamant in making sure that those bigger themes were cut through all the chapters. So, both accommodating populations in any institution and adhering to both state and national guidelines. I think we really tried to attend to that.***

Second, a potential drawback of the comprehensive, adaptable, and re-mixable nature of the materials was a lack of consistency or cohesion. In comparison to a commercial textbook in which each chapter is of a consistent length and style, and in which chapters are tied together in a clearly sequenced and consistent way, OOEC packages could be more variable in their modules' length, style, and connection to one another. Team members worried that this lack of uniformity could make the materials challenging for adjunct faculty, who often have little time to prepare for their courses. For example, one team member in the humanities expressed:

> ***I don't think it models very well the way a semester would be structured, which I think was our initial goal and it didn't come out like that. So, in order to really build a class, you'd have to spend a lot of time sifting through each of those modules…the way they're structured wouldn't lend itself to moving it straight onto a syllabus and this is what we're going to be doing for a week or two. So, I think structurally it didn't come together in the sense of pulling together, the sense of it being something I could quickly access and quickly go into class from.***

Interviewees expressed similar concerns about students becoming overwhelmed by having to navigate between chapters or modules within the course and supplementary materials such as articles, practice exercises, or hyperlinks to external resources. Some mentioned challenges related to bringing together multiple author voices in a cohesive way. For example, a team lead in the social sciences described:

> ***Here, we were creating educational content. So, it was a little bit more disjointed. There wasn't so much of an emphasis on narrative; it was more about like here are 30 links that might be useful. It felt more like an annotated bibliography.***

Although cohesion was raised as a potential concern by some interviewees, others felt the materials were just as cohesive, or even more cohesive, than is typical with commercial textbooks. One reviewer in STEM praised the OOEC package in terms of its cohesiveness:

> ***The group work activities were written using the same technology as the textbook was written, designed by the same team of people who were designing the textbook, deployed on the same platform as the textbook is deployed on… the point of OER isn't that it's cheaper, but that it restored faculty control over the course as a whole, because it enabled our faculty to really take ownership of the whole course experience for our learners.***

Third, instructors frequently raised concerns regarding how packages would be maintained, edited, or updated to reflect the evolution of their field and to meet the changing needs of their students. A semester after completing one course package, a team member in the social sciences was deeply frustrated to find that many of the external digital resources used by the package had disappeared or changed locations, resulting in broken links: “If I could get my name taken off of it, I would. It is uneven. Some of the links are dead links….. I can't use this.” Overall, about half of interviewees wondered how the courses would be sustained across the long term. As one reviewer in the social sciences said, “I've asked the folks on the state level, ‘what are the plans in terms of maintenance and engaging and so forth?’ And I've not gotten a good answer.”

Summary of Team Process Issues

Overall, the most rewarding aspect of the project for most participants was its inter-institutional and collaborative nature. Most teams worked together well: they may have encountered occasional challenges but were able to productively work through them, with the clear division of team roles and tasks being a key element of that process. A few teams suffered from more significant challenges, due to an unreliable team member or less-experienced team leader. More intensive up-front training and preparation for team leaders could have helped allay some, but not all, of these challenges. In general, teams wished they had more time and resources to support their work. In particular, additional professional development in terms of pedagogical approaches and relevant digital tools may have been helpful. Most interviewees were pleased with the final product their team created; however, some felt they could or should have added more original content to help provide context and tie together disparate resources.

MOTIVATIONS AND BARRIERS TO ADOPTION

In order to understand potential motivations and barriers to adoption of OOEC packages, in Summer and Autumn 2019 we conducted additional interviews and surveys of non-adopting instructors across Ohio colleges. The survey provided a broad understanding of motivations and barriers across instructors, while interviews provided an in-depth understanding of individual contexts and decision-making.

In terms of interviews, N = 30 of the OOEC stakeholders discussed in the previous section were instructors who could potentially adopt the relevant OOEC package in their own class, one of whom was interviewed twice because they held multiple roles. We also interviewed N = 10 additional instructors from two- and four-year colleges across the state and N = 4 "OER champions" (administrators or other faculty leaders who encouraged OER creation and adoption on their campuses), for a total of N = 44 interviewee perspectives on motivations and barriers to adoption.

In terms of the survey, we were interested in the perspectives of instructors who taught courses with relevant OOEC packages, as well as instructors who taught other courses, given the possibility that OOEC may become a long-term statewide initiative that will add new course packages over time. We were also particularly interested in community colleges, because enrollments in OOEC-relevant courses make up a high proportion of their overall course enrollments, and these institutions offer a high volume of OOEC-relevant courses through the state's high school dual-enrollment program, College Credit Plus (CCP). Accordingly, we sent a survey to community college leaders across the state encouraging them to forward the link to their instructors. Survey data was collected between November 25, 2019 and January 9, 2020.

The survey asked about benefits and challenges of using OER, adoption concerns, and motivations for adoption. Respondents answered some questions in relation to a specific course. To identify which course, respondents selected the course they most commonly taught from a list of courses for which OOEC packages were available (below, we term these "OOEC courses"). If they did not teach any OOEC courses, they selected "other" and wrote in a course name (we term these "non-OOEC courses"). For the selected course, instructors indicated how often they taught it, whether they taught a CCP section, the typical class size, and whether they were involved in textbook selection. Instructors also rated the quality of available materials, and indicated whether they had plans to adopt OOEC materials or OER in general. OER was defined as any freely available or library-held textbooks, readings, videos, software, websites, or other resources that can be used for teaching, learning, research, and other purposes, in contrast to commercially available materials. Instructors were also asked about Inclusive Access models.

The survey yielded N = 106 respondents from 16 colleges, of whom nearly half taught OOEC courses. Overall, 23% of respondents taught an OOEC Humanities course, 13% an OOEC Math course, 11% an OOEC Social Science course, and the remaining 53% taught non-OOEC courses. Respondents comprised a mix of full-time tenure track (29%), full-time non-tenure track (41%), and part-time non-tenure track (30%) appointments. Most respondents taught multiple sections of the relevant course each year, with each section being relatively small (25 or fewer students).

Table 1 provides a summary of the courses instructors selected, by type of instructor appointment. Full-time tenure track instructors were least likely to teach an OOEC course, while full-time non-tenure instructors were most likely to do so. Both types of full-time instructors taught more course sections than part-time instructors, and were more likely to be involved in the textbook selection process for their course. Although part-time instructors taught fewer sections, they were more likely to teach at least one CCP section.

Table 1. Survey: Course selected for reporting, by type of instructor appointment

	OOEC Course Discipline				Teaching Involvement		
Appointment	Hum.	Math	Social Science	Non-OOEC	Taught 5+ sections/yr	Taught CCP	Textbook selector
Full-Time TT	3%	23%	6%	68%	45%	52%	100%
Full-Time Non-TT	28%	14%	16%	42%	61%	56%	84%
Part-Time	34%	3%	9%	53%	32%	71%	28%
Overall	23%	13%	11%	53%	48%	58%	72%

Note. This table shows row percentages. OOEC Course Discipline columns total to 100% across each row, while Teaching Involvement columns represent separate variables. For example, among full-time tenure-track faculty responding to the survey, 52% taught College Credit Plus courses while the remainder (48%) did not.

In the sections below, we draw on both interview and survey data to explore instructors' awareness and openness to OOEC materials and OER in general; motivations and barriers to adoption of OOEC and other OER materials; and issues that influence the timing of adoption.

Instructor Awareness and Openness to Adoption

To gain a broad perspective on OOEC awareness and interest, the survey asked respondents whether they were familiar with the OOEC initiative, and whether they had considered adopting any OER (including an OOEC package) in their course. Overall, 48% of respondents were familiar with the OOEC initiative, 16% said they were "somewhat" familiar, and 36% were unfamiliar. In terms of OER interest, 46% of respondents had considered adopting some type of OER, while 28% were "not sure" about it, and 26% had not considered it at all.

As Table 2 shows, awareness of OOEC and interest in OER were substantially stronger among full-time faculty in comparison to part-time faculty. For example, regardless of tenure-track status, approximately 75% of full-time faculty were at least somewhat familiar with OOEC, but 62% of part- time faculty were unfamiliar with it; likewise, most full-time faculty (70% of those on the tenure track and 49% of those who were not) had considered adopting OER, while only 19% of part-time faculty had done so. This trend may be due to the fact that full-time faculty were much more likely to be involved in the textbook selection process, and therefore were more alert to new textbooks and materials in general.

Instructor awareness and interest also varied by discipline. Instructors in the social sciences were most enthusiastic about OER in general (82% had considered OER), but instructors in math were most familiar with the OOEC initiative (85% were at least somewhat aware).

Table 2. Survey: Instructor Awareness of OOEC and Interest in OER

	Aware of OOEC Initiative?			Considered any OER?		
	No	Somewhat	Yes	No	Not Sure	Yes
Appointment						
Full Time TT	26%	16%	58%	20%	10%	70%
Full Time Non-TT	23%	14%	63%	23%	28%	49%
Part-Time	62%	19%	19%	35%	45%	19%
Course Type						
Humanities	29%	25%	46%	29%	46%	25%
Math	14%	14%	71%	29%	21%	50%
Social Sciences	33%	8%	58%	9%	9%	82%
Non-OOEC	45%	14%	41%	27%	25%	47%
Overall	36%	16%	48%	26%	28%	46%

In general, awareness of OOEC and general interest in OER were correlated; for example, among instructors who were aware of the OOEC initiative, 69% had ever considered adopting any OER, while among those who were unaware of OOEC, only 25% had considered adopting OER.

Among survey respondents who were at least somewhat familiar with OOEC, most learned about it from individuals, often from within their department or college: 43% cited their department administrator or chair, 34% cited other colleagues, and 25% cited administrators outside their department. Only 19% had seen an announcement from OOEC.

In alignment with the survey results, interviews suggested that the most important source of OER awareness within each college were individual faculty members. Typically these were instructors who were already using OER in their courses (in some cases, these were OOEC content team members). In most academic departments, instructors met periodically to assess learning objectives for their courses and to identify teaching materials and tools to support students in reaching those objectives. Such departmental meetings provided a good opportunity for instructors to champion the idea of expanding the department's use of OER in general, and OOEC packages in specific. Individual instructors also advocated for OER and the OOEC packages through presentations or workshops for their peers in the department or college. For example, an OOEC team member in the social sciences explained that their own role in OOEC was key to their department's awareness and interest in adopting the package:

> ***We have decided in our department, because I kind of had the inside scoop on it, I was able to show my full-time colleagues. They loved what we were doing, and we have actually decided that all of our sections, actually starting this summer, are going to go to the OER content.***

Similarly, another instructor in the social sciences – who had no role in the OOEC project and had already adopted an entirely different OER for their course – explained their role in expanding awareness across their department:

> ***I asked if I could just pilot the class for my [College Credit Plus course]. Since I was going to be teaching [the course] and I had all this cool material, they thought, well, "why not? Just give it a try and see how it goes." … while I was doing that, piloting the class, the [social science] department started evaluating alternative textbooks, and having the OER was one of the books that we were weighing at the time. So, everybody was eager to see how it went in my class, to see where the OER would be in the running for our new textbook decision.***

At many colleges, leadership had a strong interest in expanding OER across the college, but did not have a systematic approach for cultivating awareness, interest, or adoption among their instructors. Efforts tended to focus on supporting individuals who were already aware and interested. For example, an administrator at one college explained:

> ***We have sent our library director to meetings about OER for several semesters now. She goes once a semester, and get in touch with what is developing, and then report back to faculty, ask faculty whether they need any workshop support, or any consultation support to know what those are, what OERs are, and how they can get ahold of them, and all of that…. we have encouraged faculty to consider it.***

While administrators were anxious to avoid alienating instructors or infringing on their academic freedom, some instructors said that a "push" from above could be helpful.

> ***So we had a dean who actually isn't here any longer, but he started a couple of years ago with really, I don't say "challenging" in a bad way, but challenging us to try to look for ways to make textbooks more affordable. In our department, we agreed that if we can find quality materials at a significantly reduced price that that's the direction that we wanted to go.***

OOEC's mini-grants were designed to encourage a more systematic approach to OER awareness and adoption within colleges. The mini-grant approach was new during the time of our interviews, but did seem to be a promising direction. As an instructor in the humanities explained:

> ***[Institution] received a grant and I can't remember what the name of it was, but it was to explore the adoption. So, there was a group of several different disciplines and [my discipline] was one. And so I'm working with my colleague [name] on encouraging adoption, and so part of that has been that incorporating the materials into our own classes… we took our colleagues out to lunch in the cafeteria and had it there where we showed them our materials, and things like that.***

However, college administrators were careful to only "encourage" or "support" OER and OOEC awareness or adoption, rather than to "push" OOEC packages. Administrators were concerned that putting too much pressure on instructors would create a backlash and inadvertently push them away from OER. As one administrator said:

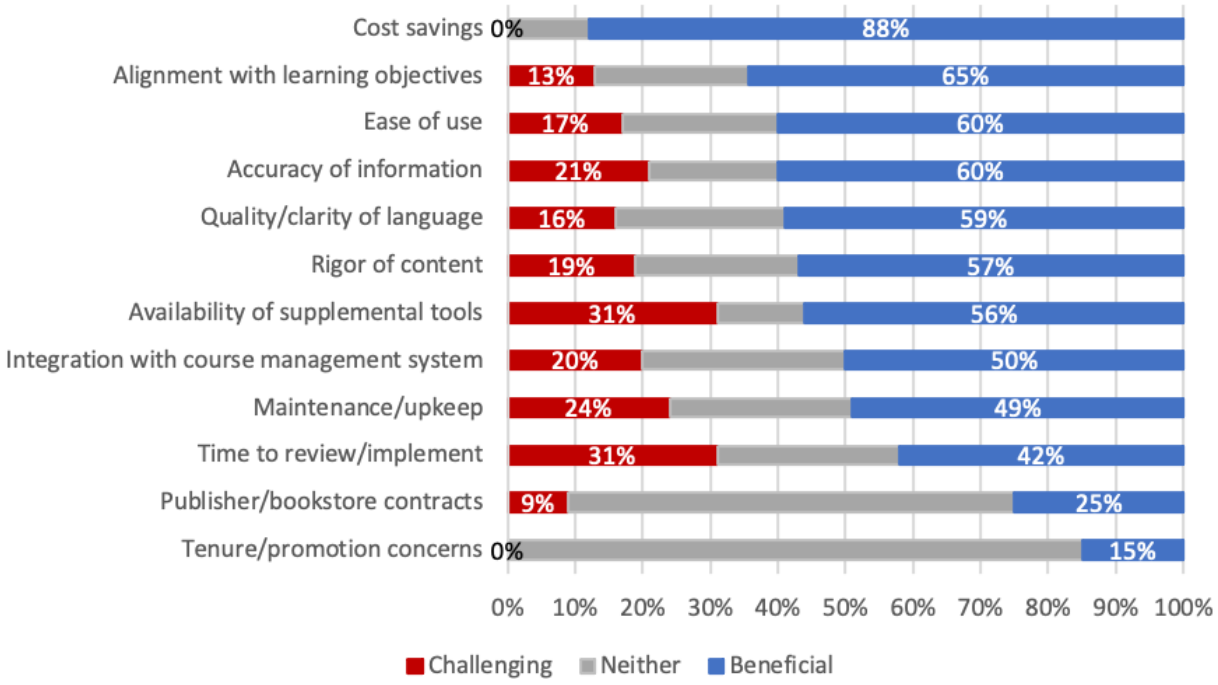
> ***We've really taken the approach of, "nobody's telling you to do anything, this is just available for you to use, for you to adopt, for you to explore, whenever you want to." And so, I think that approach, also, has been very disarming. And so, nobody has felt the need to protest because they're not being asked to do something they don't want to do.***

Overall across the survey and interview results, it seems likely that about half of the state's community college instructors are interested in OER and aware of the OOEC packages, and typically they become interested in these resources due to the influence of colleagues within their own institution.

Perceived Motivators and Barriers to Adoption

In both the interviews and surveys, respondents reported on potential benefits and challenges of OER adoption. Figure 3 shows that survey respondents rated "cost savings" as the most beneficial aspect of OER, followed by a variety of teaching- and learning-related benefits (such as alignment with learning objectives and accuracy of information). However, some respondents also cited challenges to adoption, particularly the time required to review or implement OER materials, a lack of supplemental tools, and maintenance and upkeep concerns.

Figure 3. Perceived Benefits and Challenges of OER Adoption



As discussed earlier, survey results suggested that interest in OER was strongest in the social sciences -- a rapidly-changing discipline in which current events and perspectives are often relevant to academic content. When examining the survey responses regarding the top five benefits and challenges of OER by discipline, Tables 3a and 3b suggest that instructors in all disciplines felt cost savings were a clear benefit of OER. However, perceptions of the remaining benefits and challenges seemed to differ by discipline, with those in the social sciences being most interested in the potential benefits and less concerned about the potential challenges.

Table 3a. Survey: Top five benefits of OER: Percentage rating as "beneficial" by discipline and instructor appointment

	OOEC Course Discipline				Appointment		
	Hum.	Math	Social Science	Non-OOEC	Full Time TT	Full Time Non-TT	Part Time
Cost savings	88%	90%	80%	90%	84%	97%	81%
Alignment w/ objectives	65%	30%	82%	68%	56%	64%	76%
Ease of use	41%	30%	73%	72%	62%	48%	76%
Accuracy of information	50%	50%	73%	63%	56%	56%	71%
Quality/clarity of language	50%	50%	82%	59%	50%	56%	75%

Table 3b. Survey: Top five challenges of OER: Percentage rating as "challenging" by discipline and instructor appointment

	OOEC Course Discipline				Appointment		
	Hum.	Math	Social Science	Non-OOEC	Full Time TT	Full Time Non-TT	Part Time
Time to review/implement	44%	50%	27%	22%	20%	45%	24%
Availability of supp. tools	25%	33%	27%	33%	42%	37%	10%
Maintenance/upkeep	29%	40%	18%	20%	29%	30%	10%
Accuracy of information	31%	30%	9%	17%	20%	28%	10%
Integration with CMS	25%	30%	0%	20%	24%	23%	10%

When examining the survey responses by instructor appointment, again all types of instructors agreed that cost savings were a clear benefit of OER. In terms of other benefits and challenges, surprisingly, part-time instructors were most interested in the benefits and least concerned about the challenges. Perhaps part-time instructors' lower levels of concern regarding challenges was tied to the fact that most were not involved in textbook selection – thus, other colleagues would review, implement, and pilot an OER before the part-time instructor would be encouraged or required to adopt it.

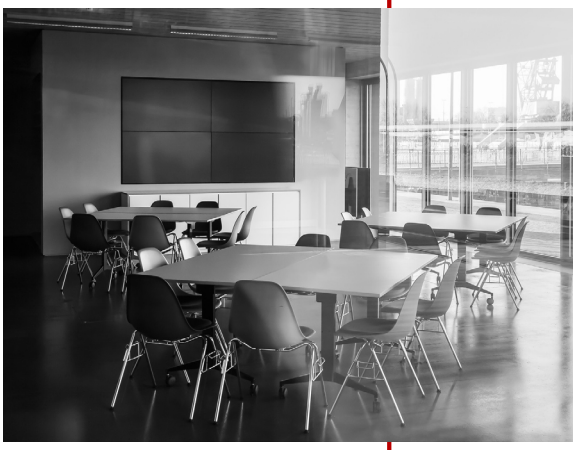
Motivator: Cost Savings

The perceived benefits motivated some respondents to adopt OER or the OOEC packages, while the challenges created barriers for others who might have initially been interested in moving forward. In the sections below, we draw from both interview and additional survey findings to illustrate respondents' perspectives about the most important motivators and barriers to adoption of OER in general, and the OOEC packages in specific. Most instructors interested in OER mentioned the importance of saving students money. As an OOEC team member in the humanities said:

> ***The more I found out about what was available, and the more data that I got about how much money is being saved across our country in various states by the systems that have already adopted OERs, the more I was persuaded it was a phenomenal resource.***

Another OOEC team member in the social sciences expressed a similar point of view, but in less positive terms:

> ***I started using it basically cost-wise. My students very seldom read the book, so they buy a book and there it sits. Whereas, if they're not going to read it, that's not saying I don't want them to, but at least they haven't paid for it.***



A few instructors explicitly compared OER to another cost-saving approach, which is new but rapidly gaining in popularity across the country: Inclusive Access commercial textbooks (for more information about Inclusive Access, see Box C). An OOEC team member in the humanities explained how Inclusive Access works, and how their college planned to use Inclusive Access and OER in tandem:

> ***…right at the same time I was doing this OER project, our college decided that to save students money, they wanted to adopt [Inclusive Access program] -- like a flat fee to get all the materials from one publisher. They got pitched on a kind of a publisher deal, and they immediately began that kind of initiative. Although [college administrators] say if OERs are available, they want to use OERs, but if OERs aren't available or if the faculty doesn't like the OERs, they want to use [Inclusive Access] materials because the students will pay a flat materials fee every semester or a one-time fee or something like that, for the life of their studies at the college.***

In contrast, another OOEC team member in the social sciences felt that the relatively low cost of Inclusive Access was still too high, compared to the zero cost of OER:

> ***Now, knowing that we have this [OOEC] material that's been vetted by other [academics] in the state, we were all on board with saying, "We're not even going to bother with Inclusive Access because it doesn't matter how low they go, unless it's free. We're offering our students free quality materials."***

Box C. Inclusive Access textbook models

In an effort to reduce commercial textbook costs, some colleges have partnered with publishers to introduce Inclusive Access (IA) models, in which students pay for the digital textbook as part of their tuition or course fees, and the institution pays a deeply-discounted bulk price. Although the IA model is quite new, an estimated 7% of faculty already use it.[13] In Ohio, a major statewide IA contract was brokered around the same time that the first OOEC packages became available. If the new IA discounts satisfy instructors' desire to save students money, then their motivation to adopt OER could be dampened. In the instructor survey, we asked whether respondents were using IA for any of their courses, and whether IA was influencing their institution's OER adoption. Overall, 17% of respondents indicated using IA, and 28% believed IA models were impacting OER adoption on their campus. In instructor interviews, only a few mentioned IA, and they tended to frame it as a complementary option rather than as a clear competitor to OER.

Motivator: Improved Instructor Controls over Materials

While instructors wanted to reduce costs for their students, savings were not the only consideration; indeed, for some instructors interested in OER, savings were distinctly secondary to teaching and learning considerations. As a reviewer in STEM explained:

> ***If people view the benefit of OER being that they're cheap, then yeah, we can have a conversation about how cheap can publishers really go and still be a profitable enterprise. But that's definitely not really what the value of OERs is. The value of OERs is in ensuring that academia controls the content and controls in particular the tools of assessment.***

In general, instructors interested in OER believed commercial textbooks in their field were lacking in some way – for example, available textbooks were outdated, were not engaging to students, did not include a variety of perspectives, or had a misplaced focus. OER materials could provide more instructor flexibility and control, allowing instructors to re-mix more recent, engaging, or useful materials into the existing OER content. For example, an instructor in the humanities who adopted the OOEC course package originally became interested in OER because their old commercial textbook was uninspiring:

> ***I was originally using [book title], which often comes packaged with a section of readings. Oftentimes they will be about a topic… I've found that those often didn't result in some of the types of conversations in class that I wanted students to have or, some of the paper explorations. Sometimes it sounds much more like prefabricated topics that students already had an opinion on. And so even when they were reading the articles and things like that, it was sometimes hard for them to move away from that. And so, I stopped using [book title], and started using more contemporary articles from newspapers and magazines that I would find online instead that I thought would capture their interest better.***

[13] Seaman, J. E., & Seaman, J. (2019). Freeing the textbook: Educational resources in U.S. higher education, 2018. Babson Survey Research Group.

As another example, an OOEC team member in STEM felt that commercial textbooks had a misplaced focus, and did not reflect a common understanding among the instructor and other colleagues regarding how students learn most effectively in their field:

> ***One of the big reasons as to why we switched to these, and by switching to these, we mean we're actually developing our own OERs. We draw from other sources too, but it allows us to be in control of what our students learn. It allows us to shape their understanding of [academic discipline] in a way that you can't do with commercialized texts.***

Barrier: Commercial Textbook is Adequate or Superior

Some instructors acknowledged the potential benefits of OER in terms of improved relevance, focus, or other aspects of instructor control, but also felt these benefits were not sufficiently strong to merit a switch from their current textbook. Indeed, across survey respondents, 89% were satisfied with their current textbooks (including 83% of those who were currently using commercial textbooks and 100% of those who were currently using OER). An OOEC team lead in the social sciences characterized the attachment of many instructors to their commercial textbook:

> ***If you ask someone what textbook they would use for [class], they would most likely say [author]. Now, why [author]? Because it's been around for a long time. It was heavily marketed. There weren't a lot of competitors. And they've constantly improved the product. Okay? So, you're fighting against kind of tradition.***

Some interviewees were skeptical about the quality of OER in general. For example, an instructor in the humanities who had not adopted any OER said:

> ***I think that people would be really happy to entertain the idea of using an OER. The real question is the quality of the materials. So, if we can get an OER with the same quality as the textbook that we're using now, that would be awesome. I think everybody would be for that.***

Other non-adopting instructors felt that textbooks should be printed in order to allow the instructor or students to engage with and annotate them more easily, or were wary of other potential pitfalls of digital materials. As a non-adopting instructor in the humanities said:

> ***I think I'm torn because part of me is all about "yes, let's get this online, let's meet them where they are, short bursts of information and things they can relate to and lots of different articles" and all this stuff. But then it's also at what point is it no longer college level material and expectations? And I'm not saying you have to have a print book to do that, but I just worry there's so much "let's meet them on Twitter, let's have an Instagram." These are all fun ways to engage, but there has to be an academic expectation at some point. I don't know. It's a tough balance.***

Interviewees who were skeptical about OER tended to associate commercial publishers with "quality," although one OOEC reviewer in STEM called that assumption into question:

> ***I don't think everybody sees an e-Book with the same value as one that comes from [publisher]. There is something about, "hey, [publisher] published this." Turns out [publisher] publishes anything that's going to make a dollar, so, I'm not sure that's a stamp of approval…***

While many non-adopting interviewees had not examined the OOEC packages in specific, a few had reviewed the OOEC materials and did not view them as an appropriate replacement to their current commercial textbook. Referring to the OOEC package, a non-adopting instructor in the humanities explained:

> ***There's no off the shelf solution sitting there. I mean, if you are used to, "I want to adopt the book and I want it to take care of all of my needs," OER is not where you should be. If on the other hand you're looking at, "I have this set of goals for my student population and I know that when I get to this topic, this is where they need more support," I found it a very rich pool of places to draw from to begin.***

On the survey, we asked respondents whether they had examined the OOEC materials closely enough form an opinion as to their quality. Only 38% (N = 40) of respondents had done so, most of whom were full-time faculty involved in textbook selection. Among those familiar with the OOEC materials, 53% rated the materials for their course as good or excellent, 23% rated them as average, and 25% rated them as poor or very poor; across respondents, the overall rating for each course typically hovered between "Average" and "Good." However, respondent ratings of the same course package often strongly disagreed. For example, for one mathematics course package rated by six respondents, 2 rated it as "Excellent," 1 as "Good," 2 as "Poor," and 1 as "Very Poor." This lack of agreement implies either that individual instructors have distinctly different preferences in terms of course content and presentation, or that some instructors confused the OOEC package with some other OER.

Barrier: Time and Effort

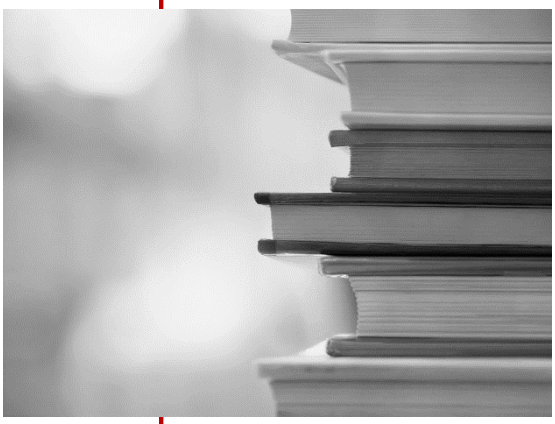
As noted earlier in Figure 3, the most commonly-cited challenges of OER adoption were the time required to review or implement the materials, and a lack of time-saving teaching tools such as presentation slide decks, pre-made assignments, or automatic grading of assignments or exams. In interviews, administrators and instructors tended to blend these two challenges together into an overall concern regarding time and effort. For example, one administrator explained:

> ***When I asked a faculty to join [the OOEC package adoption project]…they did not have time to look at the materials that had already been developed…it seemed to be a collection of various materials. It wasn't as if one would implement a single book. So, going through that and re-imagining how you would use that and maybe even really redesigning your class… When you select a textbook it really does have a major effect on what assignments you have and how you approach the material. Often one organizes the assignments and the lectures based on how the book is organized… that takes faculty members some time to go through and select and reorganize.***

An OOEC team lead in STEM acknowledged that a group of volunteers could not feasibly replicate the efforts of a major commercial firm in terms of providing seamless and integrated teaching tools; however, the team worked to identify, incorporate, and organize open-source or freely-available teaching tools to the extent possible:

> ***It was about organizing stuff in a way that people can actually use it. That's the main barrier. And that's really where the commercial companies were winning. They have very straightforward adoption mechanisms because their books come with a lot of ancillary materials already. And, of course, we have all those materials, it's just super disorganized. So, the big thing for this was getting all that material closer to a format where some random person can look at it and can say, "I can see how I would teach a course using this stuff."***

In general, instructors seemed caught between two competing considerations. They appreciated that commercial texts are intentionally designed to maximize instructor efficiency, through extremely clear and consistent organization, automatic grading, seamless integration into the college's learning management system, and other time-saving benefits. They also appreciated that OOEC packages were designed by content experts to maximize cost-savings, instructor flexibility, and alignment with key learning objectives. In the tension between efficiency and other considerations, efficiency of time and effort seemed most important in courses taught by newer, part-time, or adjunct faculty. As a non-adopting instructor in the social sciences explained:



The reason why we didn't adopt [the OOEC package] is because we have a lot of adjuncts and it takes a lot of work on the instructor's part to compensate for the weaknesses of the OER. When you have adjunct labor, they're not getting paid to compensate for a weak textbook and they don't have the time to do that. A lot of them don't have the teaching experience. Having a really good textbook that may be a little bit more expensive, and our textbook isn't expensive, but paying a little bit to help the adjuncts increase their quality of classes was the pay off. Using an OER for me, for somebody that's been teaching Intro for 20 years, isn't a problem. I can compensate for it. But some of the just-out-of-grad school, teaching and they're not getting paid much to do it, we really can't expect them to be putting in hours and hours of work to compensate.

Many non-adopting instructors echoed the importance of providing adjunct and part-time instructors, including CCP instructors, with materials that were quick and easy to use. A non-adopting instructor in the humanities also noted that it would be potentially problematic for these less-experienced instructors to have more flexibility or control over their course materials:

> ***With adjuncts and with CCP instructors in the high schools, if there isn't a book, it's a bit hard to regulate the course. Obviously we have academic freedom in the way we deliver the materials, but we have so many CCP instructors scattered at so many high schools, you do want some continuity. And if there's a plethora of resources to choose from, you run into potentially not the same course.***

Instructors' concerns about time and effort seemed to be the major barrier to OOEC package adoption. Even if OOEC packages included useful ancillary materials, potentially-interested instructors were not necessarily made aware of the packages' capabilities or how to access them. As a non-adopting instructor in STEM said:

> ***I never got a final link to where it is. I don't even know, honestly, what the final product is. Like if it's just the worksheets or they were going to have extra— Because apparently, they had exercises somewhere that went with it, and that's kind of why I didn't adopt it. I ended up going with OpenStax [book] this semester and making my own worksheets instead of using— Because I really wanted to use this stuff for spring. And I'm teaching over the summer, this [course], and I'm really hoping to phase it in. Because I think there's a lot, I mean there's a lot of potential with it, but I never got a final, "here's where you can access it now."***

Summary of Motivators and Barriers

Overall, the key motivators for adopting OER in general or OOEC packages in specific were student cost savings, as well as the ability for instructors to have more control over course materials. In contrast, the key barriers to adoption were the time and effort involved, particularly if the instructor's current textbook was already adequate or even superior to available OER options. While cost savings were important to all types of instructors across disciplines, faculty were more divided on their consideration of the remaining motivations and barriers. For experienced instructors who taught in the social sciences, the benefits of OER seemed to outweigh its challenges. However, for instructors in other fields, the potential benefits seemed less valuable; and for departments in which large proportions of students are taught by less-experienced or overstretched part-time faculty, the costs of OER in terms of instructor time and effort seemed potentially infeasible.

Plans to Adopt

The first set of OOEC packages were completed just in time for the Autumn 2018 term, when they were piloted on a very small scale by OOEC team members, reviewers, or close colleagues. Although some other instructors across the state became aware of the new packages at that time, they needed an additional semester or two to review them and plan for implementation. For example, a librarian explained:

> ***Most people that were willing to adopt things are going to be more willing to adopt them if they find out about it during the summer and have time to adapt to it, rather than a couple of weeks or a couple of months during a semester when they're probably busy. I'm thinking of fall in particular. So I mean if something comes out in June or July, they might have time to adapt it for fall and spring, but if something comes out in August or September, and they're thinking about their spring classes, I think some people are going to be less likely to adopt something new while they're really busy. So, I think that might be the biggest stumbling block is just the timing.***

For individual instructors who were not involved in OOEC teams but were potentially interested in adopting OOEC packages, the time required to review the packages and plan for implementation pushed earliest adoption of the first packages to at least Autumn 2019, with the second and third packages lagging another semester or two behind. For colleges and departments that were potentially interested in wide-scale adoption of the packages, an even longer review and planning process was required. As an OOEC team member in STEM explained:

> ***I have been implementing the [OOEC package] and working the kinks out with my specific courses. And my administration supports that, so that when fall comes around I have everything ironed out and I can present it competently and confidently to my adjunct instructors so that they feel comfortable teaching and picking up the material. So, [to support broad adoption] you would either need to provide faculty with some sort of load reduction in terms of helping them have the time to get that stuff together or allowing them a few subsequent semesters to try things, figure out what works well and what doesn't work, and then really kind of iron those things out before it really starts to roll out through an entire campus.***

A STEM instructor at another college who adopted the OOEC package provided a similar perspective:

> ***We have not presented it to any of the colleagues until we run it a couple of times. I think in August, or you know later in the summer, when this seems to be going well, we'll talk about whether anyone wants to adopt it in the fall. But the idea is to make it better in the summer, perfect it in the fall, then offer it to people in the spring. So it's a three semester thing, you know, try it, make it better, perfect it. The hope is that they would adopt it.***

When the survey was fielded in Autumn 2019, the first set of packages had been available for a little over one year, which was a relatively small window of time for instructors outside of the initiative to become aware of, review, and implement those course materials. The second set of packages had been available for about half a year, and the third set became available just as the autumn term launched. Thus, although most survey respondents were at least somewhat aware of the OOEC initiative by Autumn 2019, most who were interested in using the OEEC packages were still in the review or planning stages.

When asked whether they planned to implement an OOEC package in their course, 14% of survey respondents indicated plans to do so. Table 4 provides a portrait of these respondents in comparison to others who had no plans for OER (51%), and those who had plans for a different OER (35%).

Table 4. Survey: Instructor Adoption Plans as of Autumn 2019

	Adoption Plans		
	No Plans	Other OER	OOEC Package
Appointment			
Full Time TT	40%	52%	8%
Full Time Non-TT	55%	30%	15%
Part-Time	60%	20%	20%
Course Type			
Humanities	71%	24%	6%
Math	50%	40%	10%
Social Sciences	10%	60%	30%
Non-OOEC	54%	32%	15%[a]
Current Textbook			
Involved in Selection	49%	37%	14%
Already OER	0%	81%	19%
Already Satisfied	51%	34%	15%
Rated as "Challenging"			
Time to review/implement	62%	25%	12%
Supplemental tools	57%	39%	4%
Maintenance/upkeep	74%	26%	0%
Review of OOEC			
Had not reviewed	54%	38%	8%
Rated Good/Excellent	17%	39%	44%
Rated Average or Below	64%	36%	0%
Overall	51%	35%	14%

[a]These respondents indicated earlier in the survey that they were familiar with the OOEC initiative, even though no OOEC package was available for the course they selected. Perhaps these respondents are interested in adopting an OOEC package if it becomes available for one of their courses in the future.

Table 4 shows that instructors in the social sciences were particularly interested in adopting an OOEC package, possibly because they are most interested in OER in general: while 30% planned to adopt an OOEC package, another 60% planned to adopt (or had already adopted) a different OER. In contrast, Humanities instructors were particularly unlikely to adopt either OOEC packages (only 6% planned to do so) or any other OER (24% planned to do so).

Concerns about specific OER challenges were also related to instructors' plans for adoption. Among instructors who felt OER presented a challenge in terms of the time required to review or implement it, 62% had no plans to adopt any OER/OOEC (compared to 51% of the overall sample). Among instructors who were concerned about the availability of supplemental tools, they were almost as likely as the overall sample to choose some type of OER, but they largely avoided the OOEC package in favor of another OER (which may have had more robust supplemental tools). Among instructors who felt that OER presented a challenge in terms of maintenance or upkeep, none had plans to adopt the OOEC package and only 26% had plans to adopt a different OER (compared to 35% of the overall sample).

Finally, familiarity with the OOEC package was related to adoption plans. Among those who hadn't reviewed the OOEC package, 8% were still planning to adopt it, perhaps due to department-wide plans for adoption. Among those who reviewed their course's OOEC package and rated it as above average ("Good" or "Excellent"), a large proportion planned to adopt it (44%, compared to 14% of the overall sample). However, among those who reviewed and rated the OOEC package as "Average" or below, none planned to adopt it.

For instructors who planned to adopt a different OER, the survey asked a follow-up question regarding why they chose another OER over the OOEC package. The most common response was that they weren't familiar enough with the OOEC materials to implement them. For instructors who planned to adopt the OOEC materials, the survey asked a follow-up question regarding their key motivators for OOEC package adoption. Cost savings was the top motivator, followed by the fact that the materials were developed by trusted colleagues, and seemed better aligned to TAG learning outcomes. A handful of instructors also indicated that they were instructed to adopt the materials by their administration.[14] Finally, the survey asked OOEC adopters about their timeline for adoption; most indicated they were aiming for Spring 2020 as their target semester for implementation.

[14] Among these N = 9 instructors, 2 were full-time tenured faculty, 3 were full-time non-tenured, and 4 were part-time.

DISCUSSION

Summary of Results

Instructors across the state participated in creating OOEC materials, and enjoyed the project's inter-institutional and collaborative nature. Most teams worked together well, due to a clear division of team roles, and were pleased with their team's final product. However, teams wished they had more time and resources to support their work, and were concerned about whether their team's package would be properly updated and maintained over time.

For instructors interested in adopting OOEC packages or other OER, key motivators were student cost savings, as well as the ability for instructors to have more control over course materials. In contrast, key barriers to adoption were the time and effort involved, particularly if the instructor's current textbook was already adequate or even superior to available OER options. While cost savings were important to all types of instructors across disciplines, faculty were more divided on their consideration of the remaining motivations and barriers. For experienced instructors who taught in the social sciences, the benefits of OER seemed to outweigh its challenges. However, for instructors in other fields, the potential benefits seemed less valuable; and for departments in which large proportions of students are taught by less-experienced or overstretched part-time faculty, the costs of OER in terms of instructor time and effort seemed potentially infeasible.

Finally, familiarity with the OOEC package was related to adoption plans. Among instructors who reviewed their course's OOEC package, over half rated it as above average ("Good" or "Excellent"), and nearly half of those planned to adopt it. Among instructors who were interested in OER but had no plans to adopt the OOEC package, most said they were not familiar enough with the OOEC materials to implement them. As of Autumn 2019, it seemed likely that about half of the state's community college instructors were interested in OER and aware of the OOEC packages, but fewer of these had reviewed the relevant package with an eye to adoption. Among those who had, most became interested in these resources due to the influence of individual colleagues within their own institution. Few colleges had mounted a strong and systematic push for adoption of OOEC packages in specific or OER in general, although many colleges seemed to provide encouragement and support for faculty who were already interested in adoption.

Below, we discuss the implications of our findings for adoption within Ohio, as well as for replication of the Ohio process in other states or systems of higher education.

Implications for Adoption within Ohio

Interview and survey data suggested many instructors across the state are not familiar with OOEC materials, or have not yet considered using any OER materials in their classrooms. Most instructors seem open to the potential benefits of teaching with OOEC or other OER materials, but some are skeptical about whether these benefits can be achieved with a reasonable amount of time and effort. Moreover, instructors will be disinterested in the course packages if quality degrades over time due to broken links or inadequate content updates. Thus, to support wider adoption, efforts should focus on expanding instructors' familiarity and interest in the materials; providing colleges with resources to support easy adoption; and ensuring maintenance and updates for materials.

Leveraging State and Federal Policy to Expand Familiarity

Our results suggest that instructors typically heard about the OOEC initiative from administrators and colleagues at their college. If colleges consistently mention the availability and potential benefits of OER and OOEC packages through venues such as new instructor orientation, campus newsletters, and campus community meetings, then instructors will become increasingly familiar with these options. In order to encourage colleges to maintain a consistent level of communication about OER, the State of Ohio might consider establishing two types of reporting requirements regarding college textbook costs.

First, the state could institute stronger reporting and transparency around textbook costs, through one or more of three separate but complementary approaches. As part of its Efficiency Reporting, the state has asked colleges to report on their average textbook costs, as well as the overall percentage of courses using IA or OER models. However, these high-level statistics can be estimated by a central administrative office without the knowledge of individual academic programs, and are not disaggregated by department or course. As a result, department chairs, course coordinators, and individual instructors can remain entirely unaware of their courses' textbook costs, and unaware of how they stand in terms of textbook costs or OER adoption vis-à-vis other areas of their college or university. To extend the current reporting, institutions might be required to report average textbook costs for each program or course, as well as the proportion of each academic program's course sections participating in affordable alternatives to the traditional textbook model. The process of collecting and reporting such data on a regular basis would help department chairs, course coordinators, and individual instructors to notice how much their current textbooks cost, and to reflect on whether the time is right to lower those costs.

A separate but complementary policy approach could focus on increasing the transparency of textbook costs at the time of student registration – because courses which obviously use cheaper or no-cost textbooks may draw more student enrollments, which in turn may spark conversations among chairs, coordinators, and instructors about the value-per-dollar of their current textbook. Colleges which receive federal financial assistance are already required to disclose the "retail price" of the required textbook at the time of student registration; however, federal regulations provide that if it "is not practicable" to do so, institutions can instead indicate that the textbook is "To Be Determined."[15] Relying on the practicability clause, some institutions may list all their textbooks as "To Be Determined," while others may list specific textbooks, but require students to look up the price on a retailer's website. The State of Ohio could put in place stronger accountability controls for its colleges by, for example, clarifying the state's definition of textbook "retail price," setting targets and timelines for the proportion of course sections which list retail price, and requiring colleges to report annually on the proportion of course sections for which a retail price is listed.[16] Finally, the state could require colleges to submit the final textbook price for each course section as part of their regular reporting to the statewide Higher Education Information System.

[15] See the Higher Education Opportunity Act of 2008, Title I, Section 112.

[16] For example, the definition of retail price for printed commercial textbooks could specify it as the cost of the new textbook at the college's bookstore without any in-store discounts or promotions. Institutions may be concerned that a specific list price will become inaccurate across the several months between the date of price ascertainment and the date when students actually purchase textbooks. Institutions may also worry that students will interpret the price as a precise cost to be paid directly to the college at registration, rather than as an estimated cost to be paid separately to a retailer of the student's choosing. State regulations can help assuage institutional concerns by providing statutory language to be provided along with estimated prices, as well as liability shields for colleges who follow regulations.

Second, the state could institute stronger reporting around textbook selection policies and processes. The state has already incorporated questions into its Efficiency Reporting process regarding each college's efforts to reduce textbook prices and adopt OER. Moreover, in 2017, the state began requiring colleges to create a textbook selection policy.[17] However, the textbook selection policy legislation did not specify or encourage parameters regarding textbook affordability, and colleges are not currently required to provide the text of their policy to the state, nor indicate the extent to which it emphasizes affordability. A scan of Ohio public college textbook selection policies available on the Internet suggests that some briefly mention affordability as a desirable consideration, without providing concrete examples of how to improve textbook affordability, while others provide some examples of how to improve affordability, but omit or only briefly mention OER as an option. As a result, many instructors across the state may not seriously consider affordable textbook options as part of their textbook selection process. To encourage colleges to provide more explicit language and examples regarding affordability and OER in their textbook selection policies, the state's Efficiency Reporting and/or Completion Plan documents could ask colleges how their textbook selection policy engages with affordability in general and OER in specific.

Providing Statewide Resources to Support Adoption

Based on our interview data, in the few cases when an entire department decided to adopt an OER or OOEC package, the process followed (or was planning to follow) the "try it, make it better, perfect it" approach. First, a full-time tenure-track faculty member would initially pilot and adjust the package; then that faculty member and perhaps a few others would expand adoption and create any teaching aids that might be required for inexperienced or adjunct faculty to successfully teach with the package; and eventually, all instructors of the course would adopt the package. To support this systematic approach on a wider scale within and across colleges, the state could continue to provide small institutional grants, support statewide communities of practice, and help collect and curate ideas for OOEC package updates.

First, small institutional grants help colleges provide "course release time" to tenure-track faculty, freeing up those instructors' time to pilot, refine, and help lead full-scale adoption of an OER or OOEC package over all sections of a given course. Small grants can also support time for the college's technology team to develop an integration for the OOEC package into the college's learning management system, if such integration is not already straightforward.

Second, the state is already planning to create a set of resources to support instructors across the Ohio who wish to adopt OOEC materials, by creating a set of pre-recorded webinars which provide step-by-step guidance in how to adopt and adapt existing OOEC packages. In addition, the state could formally support a statewide community of practice for each OOEC package, perhaps hosted or facilitated by OhioLink. Thus, for example, a tenure-track faculty member piloting OOEC's Composition I package for their English department in Cleveland could connect and collaborate with another instructor in Cincinnati who is doing the same. As those departments develop teaching aids to support inexperienced or adjunct faculty with adoption, the community of practice can curate or highlight the teaching aids that are most useful and suggest other updates and improvements for the OOEC package.

[17] Ohio Revised Code, Title 33, Chapter 3345, Section 3345.025 reads "The board of trustees of each state institution of higher education as defined in section 3345.011 of the Revised Code shall adopt a textbook selection policy for faculty to follow in selecting and assigning textbooks and other instructional materials for use in courses offered by the institution. The policy shall include faculty responsibilities and actions faculty may take in selecting and assigning textbooks and other instructional materials."

Ensuring Statewide Maintenance and Updates

Our results suggest that many instructors were concerned about whether the OOEC packages will be maintained and updated over time. While similar concerns exist regarding print textbooks, which can also quickly become outdated, instructors identified digital issues unique to OER, such as the need to regularly check for and update broken links. Recognizing the need for regular updates, the state has reallocated unused grant funds to provide two additional years of automated link checking, and to convene a faculty review panel for potentially adjusting learning TAG/OTM learning outcomes with the OOEC packages in mind.

To build upon this foundation, the state could integrate OOEC package updates into the regular TAG/OTM review process. If statewide communities of practice help surface and prioritize materials which should be added to the package, or issues which require corrections or updates, then TAG/OTM review panels could review and approve these updates as part of their current meeting cycle. With the promise of an ongoing resource stream to support this work, OhioLINK could then execute the updates within the OOEC microsite. In addition to the inherent benefit of ensuring OOEC package maintenance, the cycle of formal update review and approval can generate content for communications about OOEC packages, providing colleges across the state with OER-relevant updates for campus newsletters and campus meetings. Regular updates can thus reinforce colleges' ability to maintain a steady drumbeat of communications regarding the availability and value of OER in general, and OOEC packages in specific.

Replicating the Ohio Process Elsewhere

OOEC was built on and interwoven into Ohio's existing infrastructures for higher education. The Ohio Association of Community Colleges had deep relationships with Chief Academic Officers and other leaders at every community college in the state, and leveraged these relationships to recruit faculty for course development teams, solicit input and feedback on OOEC processes and products, organize inter-institutional convenings, and push updates about the project to individual departments and instructors. OhioLINK had relationships with librarians across the state, had long provided training and support for faculty interested in affordable materials, had the technical expertise necessary to select and manage an online platform to host digital materials, and had experience in developing economies of scale by negotiating bulk licensing agreements across all the state's institutions. The two partner universities, Ohio State and Ohio Dominican, provided academic clout for the project, as well as a professional project manager who could focus full-time on the development teams. Transfer Assurance Guides provided a common set of learning outcomes which served as a critical foundation for each team, and perhaps may also provide a mechanism for long-term maintenance of the OOEC packages. While every state is different, and most will not have exact counterparts for Ohio's infrastructures, other states should carefully consider their current infrastructures and how they could work together to manage a large-scale initiative across multiple colleges. If a key infrastructure – such as Ohio's common learning outcomes for the state's most popular college-level courses – is missing, then a state or system may need to create their own version of that infrastructure before attempting an ambitious project like OOEC.

OOEC's process for course package creation was developed based on the experiences of OhioLINK, Ohio State, and other partners who had previously invested in textbook affordability initiatives. These experiences led to the creation of clear roles, responsibilities, and lines of communication for the steering committee, project managers, content team leads, content team members, librarians, and reviewers. Each of these roles were critical to the success of the project; thus, we would recommend that other states and systems replicate each of these roles within their own efforts to develop or encourage adoption of OER adoption. For interested states and systems, the Appendix contains concrete examples for replication of OOEC's project processes.

While OOEC's process for package development was largely successful, the process could have been improved in two key ways. First, during the first year the steering committee's (largely volunteer) time and attention was absorbed by the administrative details of designing, recruiting, selecting, launching, and supporting content development teams. When the committee eventually had time to focus on adoption, it undertook an entirely new process of designing and piloting methods to support adoption. To avoid this time lag, other states or systems may wish to create roles that are focused on adoption from the beginning.

For example, course teams could include an "ambassador," whose primary role is to connect with relevant disciplinary organizations and fellow instructors across the state who are teaching the course, in order to solicit input on the course development process and push updates and support around adoption of the final product. Second, content team members consistently noted that their financial compensation was quite small compared to the amount of time they invested in the project, and the minimal compensation may have dissuaded other instructors from applying to participate on content teams. However, providing substantially higher compensation may be financially infeasible for most states and systems.

Accordingly, we recommend that in addition to the level of financial compensation provided in this project, states and systems consider providing non-financial forms of appreciation and compensation. In particular, several interviewees indicated that teams would benefit from more professional development regarding course design, pedagogy, or project management. Additional free and high-quality professional development – which could be delivered in-person or through synchronous online workshops -- represents a form of compensation that many instructors would appreciate. Other interviewees noted that the highlight of OOEC was the opportunity to collaborate and build authentic relationships with talented colleagues across the state who teach in the same discipline. By building this informal aspect of the project into a more formal community of practice, states and systems can enhance and extend relationship-building among colleagues and help position content team members as leaders in their communities. A formal ceremony of recognition and appreciation, perhaps at the Capitol with a state legislator or well-known higher education leader, could also serve as a form of non-pecuniary compensation for participants.

CONCLUSION

Across its first two years, OOEC achieved its ambitious goal of developing a wide array of freely-available modular course packages, which were each aligned to statewide learning outcomes, and were designed to be engaging and appropriate for students of diverse backgrounds attending two-year and four-year colleges and universities across the state. In the process, Ohio has provided other regional or statewide collaborative approaches with concrete examples for good practice, as well as "lessons learned" and opportunities for improvement.

If Ohio can maintain and update its OOEC packages over time, and leverage state policies and resources to expand instructor familiarity with the materials, then adoption is likely to spread slowly but steadily across the state. Providing statewide resources to support adoption could speed and strengthen this spread. However, if formal processes are not put in place to support maintenance, familiarity, and adoption, then OOEC materials may have little long-term impact on textbook affordability across the state.

APPENDIX A: COMPLETE LIST OF PARTNERING INSTITUTIONS

Lead institution

- North Central State College

University partners

- Ohio Dominican University
- The Ohio State University

Community college partners

- The Ohio Association of Community Colleges
  - Northwest State Community College
  - Edison State Community College
  - Terra State Community College
  - Central Ohio Technical College
  - Southern State Community College
  - Washington State Community College
  - Rhodes State College
  - Lorain County Community College
  - Lakeland Community College
  - Stark State Community College
  - Sinclair Community College
  - Clark State Community College
  - Columbus State Community College
  - Hocking College
  - Marion Technical College

Additional partners

- The Ohio Department of Higher Education
- OhioLINK

APPENDIX B: LIST OF OOEC COURSES

Cohort 1	Cohort 2	Cohort 3
American Government	Calculus I & II	Abstract Algebra*
Writing I & II	Macroeconomics	Biology I & II
Introduction to Psychology	Ordinary Differential Equations*	College Algebra
Introduction to Sociology		Elementary Math Education
Statistics		Middle Childhood Math Educ.
Linear Algebra*		Introduction to Ethics
		Manufacturing Processes
		Microeconomics
		Pre-Calculus
		Public Speaking
		U.S. History I

An asterisk (*) indicates an upper-level mathematics course.

APPENDIX C: CONTENT TEAM, LIBRARIANS, AND REVIEWER APPLICATION

OHIO Open Ed COLLABORATIVE
ADOPT + SHARE + CREATE + LEAD

ODHE Innovation Grant | Open Educational Resources
Cohort 3 Content Team Application

Contact Information and Background

Please complete the form below to indicate your interest in participating on a content team to develop affordable content packages as a part of the Ohio Department of Higher Education Innovation Grant project. There are two content roles for faculty, Content Team Lead and Content Team Contributor. Both roles are compensated (see details on the next page).

You will need approximately 15 minutes to complete this application including uploading your CV/resume and a letter of support from your department chair / supervisor on the final page. If desired, you can download a template for the letter of support here.

* 1. Contact Information

First Name	
Last Name	
Institution	
Title	
Email Address	
Contact Phone Number	

* 2. Indicate the course content team you are interested in. To be considered for multiple courses from the list below, please complete one application for each course.

- ◯ Abstract Algebra
- ◯ Biology I
- ◯ Biology II
- ◯ Business Law
- ◯ College Algebra
- ◯ Elementary Math Education
- ◯ Middle Childhood Math Education
- ◯ Lifespan Development/Human Growth
- ◯ Intro to Ethics
- ◯ Manufacturing Processes
- ◯ Microeconomics
- ◯ Pre-Calculus
- ◯ Public Speaking
- ◯ US/American History I
- ◯ US/American History II

* 3. Do you currently serve on a Transfer Assurance Guide committee for this course? (Note: A "No" answer does not affect eligibility.)

- ◯ Yes, I currently serve on a TAG committee
- ◯ No, I do not currently serve on a TAG committee but I have in the past
- ◯ No, I have never served on a TAG committee
- ◯ N/A, there is no TAG committee for this course

* 4. How many times have you taught this course in the past three years?

* 5. Cost of Current Course Materials

Please list all costs as a whole number without dollar signs for the following categories: textbooks, lab manuals, additional supplements, and other categories.

Textbook(s)	
Lab manual(s)	
Additional supplement(s)	
Other	

Team Roles and Experience

Content Contributors participate as a team to create a package of content that can be adopted in whole or in part by instructors teaching this course across institutions. The team will either curate existing or create new OER content to assemble this package. Content Contributors will receive a stipend of between $1,500-$4,500, depending on the scope of work proposed by the team and type of content developed.

Content Team Leads participate as Content Contributors, but take on additional tasks to coordinate and plan work in collaboration with project administrators. There is one lead designated for each team, and this role is eligible for an additional $500 in compensation. Content Team Leads must be willing and dedicated to take on the additional tasks required to coordinate this work.

* 6. Are you interested in applying to be the Content Team Lead for your course?

- ◯ Yes, I am interested in the Content Team Lead role
- ◯ No, I am not interested in the Content Team Lead role

Team Roles and Experience - Content Team Lead

* 7. The Content Team Leads are responsible for additional work in coordination with project administrators. Because of this, please rate your skill level with the following:

	Poor	Fair	Good	Excellent
Solving problems and making decisions to meet deadlines	◯	◯	◯	◯
Communicating effectively	◯	◯	◯	◯
Valuing diversity and difference of opinion	◯	◯	◯	◯
Building and maintaining relationships	◯	◯	◯	◯
Managing effective teams and work groups	◯	◯	◯	◯
Working with ambiguity	◯	◯	◯	◯
Managing conflict and disagreements	◯	◯	◯	◯
Setting specific, measurable, and attainable goals for self and team or work group	◯	◯	◯	◯

* 8. Tell us briefly why you would be effective as the Content Team Lead.

Team Roles and Experience - Content Team Lead

* 7. The Content Team Leads are responsible for additional work in coordination with project administrators. Because of this, please rate your skill level with the following:

	Poor	Fair	Good	Excellent
Solving problems and making decisions to meet deadlines	○	○	○	○
Communicating effectively	○	○	○	○
Valuing diversity and difference of opinion	○	○	○	○
Building and maintaining relationships	○	○	○	○
Managing effective teams and work groups	○	○	○	○
Working with ambiguity	○	○	○	○
Managing conflict and disagreements	○	○	○	○
Setting specific, measurable, and attainable goals for self and team or work group	○	○	○	○

* 8. Tell us briefly why you would be effective as the Content Team Lead.

Team Roles and Experience

9. What experience do you have, if any, using open and/or affordable learning resources?

* 10. Tell us briefly why you are interested in this opportunity.

Content Adoption

Faculty from universities and university regional campuses are encouraged to adopt course content developed and reviewed by content teams in at least one section in each course from the above list by Fall of 2019. Faculty from partnering community and technical colleges are required to adopt course content developed and reviewed by content teams in at least one section in each course from the above list by Fall of 2019. If you are not personally able to teach using the content developed and reviewed as part of this project, please indicate the reason below, and describe your department's plans in terms of adoption of this content.

* 11. Are you planning to adopt the content your team creates or curates in a course that you personally teach?

- [ ] Yes
- [ ] No, please explain:

* 12. Indicate the anticipated semester of adoption:

- ( ) Fall 2019
- ( ) Summer 2020
- ( ) Spring 2020
- ( ) Fall 2020
- ( ) Other (please specify)

Supporting Materials

* 13. Upload your CV/resume as a PDF or Word document.

Choose File | Choose File | No file chosen

* 14. Upload a letter of support from your department chair or supervisor.

Choose File | Choose File | No file chosen

OHIO Open Ed COLLABORATIVE
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ODHE Innovation Grant | Open Educational Resources
Cohort 3 Librarian Application

Contact Information and Background

Please complete the form below to indicate your interest in participating as a librarian on a content team to develop affordable content packages as a part of the Ohio Department of Higher Education Innovation Grant project. Librarians must be from a member OhioLINK institution and should have experience in the subject matter and with affordable and open educational resources. The role will be compensated (see details on the next page).

You will need approximately 15 minutes to complete this application including uploading your CV/resume and a letter of support from your library dean or director on the final page. If desired, you can download a template for the letter of support here.

* 1. Contact Information

First Name	
Last Name	
Institution	
Title	
Email Address	
Contact Phone Number	

* 2. Indicate the course content team you are interested in. To be considered for multiple courses from the list below, please complete one application for each course.

- ○ Abstract Algebra
- ○ Biology I
- ○ Biology II
- ○ Business Law
- ○ College Algebra
- ○ Elementary Childhood Math Education
- ○ Middle Childhood Math Education
- ○ Lifespan Development
- ○ Intro to Ethics
- ○ Manufacturing Processes
- ○ Microeconomics
- ○ Pre-Calculus
- ○ Public Speaking
- ○ US/American History I
- ○ US/American History II

* 3. Do you currently serve as a subject matter librarian in this content area?

- ☐ Yes
- ☐ No

* 4. Do you have experience researching/curating/collating open educational resources and affordable learning resources in this course content area?

- [ ] Yes
- [ ] No

Team Roles and Experience

Librarian contributors will participate as part of a team to create a package of content that can be adopted in whole or in part by instructors teaching this course across institutions. The team will either curate existing or create new OER content to assemble this package. Most of the work can be done remotely and the amount of work required would be comparable to helping a new faculty member design a course and choose educational materials. Librarians will receive a stipend of $1000 for their work assisting the course content team.

5. What experience do you have, if any, helping faculty to use open and/or affordable learning resources?

* 6. Tell us briefly why are are interested in this opportunity.

* 7. Would you be able to help promote the adoption of the course content your team creates or curates at your institution?

- [ ] Yes
- [ ] No, please explain:

Supporting Materials

* 8. Upload your CV/resume as a PDF or Word document.

Choose File | Choose File | No file chosen

* 9. Upload a letter of support from your library director or dean as a PDF or Word document.

Choose File | Choose File | No file chosen

OHIO OpenEd COLLABORATIVE
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ODHE Innovation Grant | Open Educational Resources
Cohort 3 Reviewer Application

Contact Information and Background

Please complete the form below to indicate your interest in participating on a team to review affordable content packages assembled by faculty, librarians and instructional designers as a part of the Ohio Department of Higher Education Innovation Grant project. You will need approximately 15 minutes to complete this application and upload your resume/CV on the final page.

* 1. Contact Information

First Name	
Last Name	
Institution	
Title	
Email Address	
Contact Phone Number	

* 2. Indicate the course content team you are interested in. To be considered for multiple courses from the list below, please complete one application for each course.

- ◯ Abstract Algebra
- ◯ Biology I
- ◯ Biology II
- ◯ Business Law
- ◯ College Algebra
- ◯ Elementary Math Education
- ◯ Middle Childhood Math Education
- ◯ Lifespan Development/Human Growth
- ◯ Intro to Ethics
- ◯ Manufacturing Processes
- ◯ Microeconomics
- ◯ Pre-Calculus
- ◯ Public Speaking
- ◯ US/American History I
- ◯ US/American History II

* 3. Do you currently serve on a Transfer Assurance Guide committee for this course? (Note: A "No" answer does not affect eligibility.)

* 4. How many times have you taught this course in the past three years?

5. What experience do you have, if any, using open and/or affordable learning resources?

* 6. Tell us briefly why are are interested in this opportunity.

* 7. Please describe any prior experience you have in a peer review role.

Content Adoption

Faculty from universities and university regional campuses are encouraged to adopt course content developed and reviewed by content teams in at least one section in each course from the above list by Fall of 2019. Faculty from partnering community and technical colleges are required to adopt course content developed and reviewed by content teams in at least one section in each course from the above list by Fall of 2019. If you are not personally able to teach using the content developed and reviewed as part of this project, please indicate the reason below, and describe your department's plans in terms of adoption of this content.

* 8. Are you planning to adopt the content you review in a course that you personally teach?

- [ ] Yes
- [ ] No, please explain:

* 9. Indicate the anticipated semester of adoption:

Supporting Materials

* 10. Upload your Resume/CV as a PDF or Word document.

Choose File | Choose File | No file chosen

APPENDIX D: CONSULTANT SCOPE OF WORK

CONTENT TEAM
SCOPE OF WORK

OHIO Open Ed COLLABORATIVE
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I. OVERVIEW

Each course content team is responsible for developing a set of guidelines and content that encourages wide adoption of the resources in that package for that course throughout Ohio. Within each course, teams are responsible for developing five, required deliverables, which together constitute the basic package. Compensation for this basic package work is $1,500 per team member.

These materials may be supplemented by additional resources that the team members author. In some cases, this work will be collaborative (i.e., a lab manual or book chapter co-authored by two team members), and in other cases this work will be undertaken by individual team members (i.e., an Open Textbook Library textbook review, sample assignments, or sample lecture sides). Additional content development is optional and capped at $3,000. The total cap for participation on a course content team is $4,500, which includes both the required basic package deliverables and any optional, additional content development.

Teams must submit a "Scope of Work Proposal" that outlines all additional content development work as part of their basic package. The OER Steering Committee will either approve or reject content proposals (or specific parts of the proposal) based on overall workload for the team, availability of existing materials, time, and budget considerations. All newly developed content must be creative commons (CC) licensed.

II. OER COURSE DELIVERABLES

A. **Required Basic Package**
Each course content team must include the following deliverables in their final course content package within the time parameters, on a scheduled rolling basis.

1. Scope of Work Proposal
2. Project Plan
3. Course Objectives
4. Final Report
5. Quick Adoption Guide

B. **Optional Additional Content Development Items**
Each course content team has the option to include any of the following items in their final course content package and Quick Adoption Guide, in addition to the required deliverables in the basic package.

1. Review of an open textbook for this course available through the Open Textbook Library
2. 1,000 question test bank
3. Original content authored by team members, either individually or in collaboration. Examples include:
   - Lab manual
   - Narrative document addressing specific course objectives (resembling a book chapter in length)
   - Sample assignments
4. Instructor ancillary supports, such as sample lecture slides
5. List of recommended articles or other resources found in OhioLINK

Course content teams may include content items outside this list, however any supplemental item must be allowed with advance authorization by the OER grant steering committee. All additional content development outside the basic package content must be outlined and justified in the Scope of Work Proposal, which will be either approved or rejected by the OER Steering Committee based on overall workload for the team, availability of existing materials, time, and budget considerations.

Please also note that while some teams will choose to develop some of the additional content items, there is no requirement to do so beyond the basic package.

III. COMPENSATION

A. Content Contributor Compensation

The base compensation for each content contributor is set at $1,500 for each course. This includes the five required, basic package deliverables. Content contributes may be compensated for producing optional additional content development items as outlined in section IV. Content contributor's total compensation is capped at $4,500.

B. Content Team Lead Compensation

Team leads participate as team contributors, as well as have additional responsibilities as a team leader. As such, team leads will receive an additional $500 above their required, basic package, or a base compensation of $2,000. Team leads are also eligible to be compensated for producing optional additional content development items as outlined in section IV, in addition to their base compensation and team lead compensation. Content team lead total compensation is capped at $5,000.

C. Compensation Process

Compensation will be provided to content contributors and team leads upon completion of the content package (both content creation/curation and review process). Base compensation, as outlined in the basic package, will be established in the faculty contract. An addendum to the faculty contract will outline compensation for any additional content development, based on the items outlined in the Scope of Work Proposal that are approved by the OER steering committee. Once the content package is complete, content contributors and team leads are responsible for invoicing North Central State College to receive compensation for participating in the OER grant initiative.

IV. COHORT 3 PROJECT TIMELINE

The following outlines the *tentative* timeline for Cohort 2 content development. Specific dates and details will be managed by the ODHE Grant Project Coordinator, [CONTACT HERE]

MILESTONE	TIMELINE
Content Team Kick-Off Calls	January 2019
Mandatory In-Person Bootcamp	January 25, 2019
Content Map due *(core deliverable)*	February 2019
Team Existing Content Review	February – August 2019
Scope of Work Proposal Due	March 2019
Quick Adoption Guide Development *(core deliverable)*	March – August 2019
Optional Special Project 1 Development	March – May 2019
Optional Special Project 2 Development	April – June 2019
Optional Special Project 3 Development	May – August 2019
Final Course Package due	August 15, 2019

V. DELIVERABLES & COST BREAK DOWN

A. BASIC PACKAGE COST BREAKDOWN

The following basic package deliverables are required by each content team member to receive the base $1,500 compensation for OER content team participation. All content team members will be responsible for completing the Basic Package deliverables.

Level:	Deliverable:	Compensation:
Basic Package *(REQUIRED)*	**Scope of Work Proposal:** needs justification for development of additional content	$300
Basic Package *(REQUIRED)*	**Project Plan**	$300
Basic Package *(REQUIRED)*	**Course Objectives:** ensure that course objectives align with TAG/OTM designation set out by the Ohio Department of Higher Education	$300
Basic Package *(REQUIRED)*	**Final Report**	$300
Basic Package *(REQUIRED)*	**Quick Adoption Guide:** this guide will include recommended content by course objective from available sources (OER materials or materials found on OhioLINK)	$300
TOTAL COMPENSATION FOR ALL 5 REQUIRED BASIC PACKAGE DELIVERABLES: $1,500*		

*For ***Content Team Leads ONLY,*** total compensation for all 5 required basic package deliverables is $2,000, including the $500 team lead pay.

B. ADDITIONAL CONTENT DEVELOPMENT COST BREAKDOWN

The following deliverables constitute additional content development. While this is not an exhaustive list, content development outside the following deliverables may be permitted with advance authorization by the OER grant steering committee. All additional content development (found below and otherwise) must be outlined and justified in the Scope of Work Proposal, which will be either approved or denied by the OER grant steering committee. Any additional content development *not* approved by the OER grant steering committee is not eligible to receive additional compensation.

This work can be completed individually, in small groups (e.g. 2-3 people), or collectively as a content team. As such, compensation will be dependent on assigned additional content development from the Scope of Work Proposal.

Level:	Deliverable:	Compensation:
Additional Content Development *(OPTIONAL)*	**1,000 Question Test Bank**	$750
Additional Content Development *(OPTIONAL)*	**Original Content Authored by Team Members** This could include a lab manual, narrative document addressing specific course objectives (resembling a book chapter in length), or sample assignments.	$750
Additional Content Development *(OPTIONAL)*	**Instructor Ancillary Supports** e.g. sample lecture slides	$500
Additional Content Development *(OPTIONAL)*	**List of Sample Assignments**	$500
Additional Content Development *(OPTIONAL)*	**List of Recommended Articles or Other OhioLINK Resources**	$500
Additional Content Development *(OPTIONAL)*	**Open Textbook Review on the Open Textbook Library**	$200
TOTAL ADDITIONAL CONTENT DEVELOPMENT COMPENSATION (CAPPED AT $3,000):		**$200 - $3,000**

LIBRARIAN
SCOPE OF WORK

OHIO Open Ed COLLABORATIVE
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I. OVERVIEW

Librarian consultants will assist their course content team as they develop course content package deliverables. This includes the following:

1. Participate in monthly calls with the course content creation team.
2. Participate in a community of practice with the other OER librarians who have been selected for course content teams. This could include participating in a discussion group, listserv, periodic calls, and other ways to share ideas and resources across the group.
3. Search, curate, and vet quality resources including multimedia and ancillary materials in conjunction with the course content teams.
4. Add quality resources to the A-Z database on OhioLINK's affordable learning website.
5. Identify and document the rights and restrictions regarding the use of the materials.
6. Check when the resource was last evaluated, as well as who did the evaluation.
7. Help with the citation process. Sources for materials must be clearly identified and cited. The citation should include the author/owner name, date of publication, title, and a URL or source link.
8. Identify whether or not updates have or will be done. Dynamic sources may alter the content that is being used. Make certain that faculty are aware of modifications that can occur when using OERs.
9. Check the accessibility of the resources, like the potential problems in the text that may need to be addressed if the course has a student who needs accommodations.
10. Help to identify the best way to present the resources to the students, and if faculty need assistance with linking the resource to their course.
11. Participate in a librarian focus group on the requirements for the OER Commons Microsite. Assist with the process of metadata tagging when the materials are being added to the OER Commons Microsite.

II. OER COURSE DELIVERABLES

A. **Required Basic Package**

Each course content team must include the following deliverables in their final course content package within the time parameters, on a scheduled rolling basis. Librarian consultants will support their course content team as needed, to help meet each deliverable.

1. Scope of Work Proposal
2. Project Plan
3. Course Objectives
4. Final Report
5. Quick Adoption Guide

B. **Optional Additional Content Development Items**

Each course content team has the option to include any of the following items in their final course content package and Quick Adoption Guide, in addition to the required deliverables in the basic package. Librarian consultants may assist as needed.

1. Review of an open textbook for this course available through the Open Textbook Library
2. 1,000 question test bank

3. Original content authored by team members, either individually or in collaboration. Examples include:
   - Lab manual
   - Narrative document addressing specific course objectives (resembling a book chapter in length)
   - Sample assignments
4. Instructor ancillary supports, such as sample lecture slides
5. List of recommended articles or other resources found in OhioLINK

Course content teams may include content items outside this list, however any supplemental item must be allowed with advance authorization by the OER grant steering committee. All additional content development outside the basic package content must be outlined and justified in the Scope of Work Proposal, which will be either approved or rejected by the OER Steering Committee based on overall workload for the team, availability of existing materials, time, and budget considerations.

Please also note that while some teams will choose to develop some of the additional content items, there is no requirement to do so beyond the basic package.

III. COMPENSATION

A. Librarian Compensation
Each librarian consultant will receive total compensation of $1,000 per course.

B. Compensation Process
Compensation will be provided to librarians upon completion of the content package (both content creation/curation and review process). Once the content package is complete, librarians are responsible for invoicing North Central State College to receive compensation for participating in the OER grant initiative.

IV. COHORT 3 PROJECT TIMELINE

The following outlines the *tentative* timeline for Cohort 2 content development. Specific dates and details will be managed by the ODHE Grant Project Coordinator, [CONTACT HERE]

MILESTONE	TIMELINE
Content Team Kick-Off Calls	January 2019
Mandatory In-Person Bootcamp	January 25, 2019
Content Map due *(core deliverable)*	February 2019
Team Existing Content Review	February – August 2019
Scope of Work Proposal Due	March 2019
Quick Adoption Guide Development *(core deliverable)*	March – August 2019
Optional Special Project 1 Development	March – May 2019
Optional Special Project 2 Development	April – June 2019
Optional Special Project 3 Development	May – August 2019
Final Course Package due	August 15, 2019

REVIEWER
SCOPE OF WORK

OHIO Open Ed COLLABORATIVE
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I. OVERVIEW

Reviewers will provide quality assurance and formative feedback via peer review of the OER Grant Content Team's deliverables for both the basic package and any additional content development. Reviewers will complete the following tasks:

1. Provide regular status/updates on progress to the ODHE Grant Project Coordinator, [CONTACT HERE]
2. Stay in regular communication with the OER Content Team they will be reviewing
3. Attend Boot Camp on project expectations, roles, timelines, and course review rubric/criterion, facilitated by the OER Grant Steering Committee
4. Apply the review rubric/criterion provided by the OER Steering Committee to OER Content Team deliverables
5. Provide specific, constructive feedback to OER Content Teams on individual deliverables
6. Provide a Final Report summary of all reviewed deliverables to the OER Grant Steering Committee

II. OER COURSE DELIVERABLES

A. Required Basic Package

Each course content team must include the following deliverables in their final course content package within the time parameters, on a scheduled rolling basis. Reviewers will provide feedback throughout this process.

1. Scope of Work Proposal
2. Project Plan
3. Course Objectives
4. Final Report
5. Quick Adoption Guide

B. Optional Additional Content Development Items

Each course content team has the option to include any of the following items in their final course content package and Quick Adoption Guide, in addition to the required deliverables in the basic package. Reviewers will be responsible for providing feedback to any additional content development items.

1. Review of an open textbook for this course available through the Open Textbook Library
2. 1,000 question test bank
3. Original content authored by team members, either individually or in collaboration. Examples include:
   - Lab manual
   - Narrative document addressing specific course objectives (resembling a book chapter in length)
   - Sample assignments
4. Instructor ancillary supports, such as sample lecture slides
5. List of recommended articles or other resources found in OhioLINK

Course content teams may include content items outside this list, however any supplemental item must be allowed with advance authorization by the OER grant steering committee. All additional content development outside the basic package content must be outlined and justified in the Scope of

Work Proposal, which will be either approved or rejected by the OER Steering Committee based on overall workload for the team, availability of existing materials, time, and budget considerations.

Please also note that while some teams will choose to develop some of the additional content items, there is no requirement to do so beyond the basic package.

III. COMPENSATION

A. **Reviewer Compensation**
Each course reviewer will receive total compensation of $500 per course.

B. **Compensation Process**
Compensation will be provided to reviewers upon completion of the content package (both content creation/curation and review process). Once the content package is complete, reviewers are responsible for invoicing North Central State College to receive compensation for participating in the OER grant initiative.

IV. COHORT 3 PROJECT TIMELINE

The following outlines the *tentative* timeline for Cohort 2 content development. Review of each deliverable will be due as directed by the ODHE Grant Project Coordinator [CONTACT NAME HERE]

MILESTONE	TIMELINE
Content Team Kick-Off Calls	January 2019
Mandatory In-Person Bootcamp	January 25, 2019
Content Map due *(core deliverable)*	February 2019
Team Existing Content Review	February – August 2019
Scope of Work Proposal Due	March 2019
Quick Adoption Guide Development *(core deliverable)*	March – August 2019
Optional Special Project 1 Development	March – May 2019
Optional Special Project 2 Development	April – June 2019
Optional Special Project 3 Development	May – August 2019
Final Course Package due	August 15, 2019

APPENDIX E: BOOTCAMP AGENDA

OHIO OpenEd COLLABORATIVE

Cohort 3 Boot Camp

Friday January 25, 2019 | 9:00 AM – 4:00 PM

Ohio Dominican University | Bishop Griffin Student Center Conference Room 258-260

AGENDA

Time	Agenda Item
9:00 – 9:30	**Registration** (coffee & light breakfast provided)
9:30 – 9:45	**Welcome & Introductions** | *Dr. Karen Reed, Chief Academic Officer, North Central State College*
9:45 – 10:00	**OER Project Overview** | *Garratt Weber, Project Coordinator for the Student Success Center, Ohio Association of Community Colleges*
10:00 – 10:45	**OER Project Panel Presentation** | *Cohort 1 & 2 Content Team Members*
10:45 – 12:00	**Team Break-Out Work Session 1**
12:00 – 12:45	**Lunch**
12:45 – 1:50	**Project Deliverables, OhioLINK, Intellus and OER Microsite Overview**
1:50 – 2:00	**Break**
2:00 – 2:30	**Copyright & Accessibility Overview** | *Ashley Miller, Associate Director of Affordability & Access, Ohio State University*
2:30 – 3:30	**Team Break-Out Work Session 2**
3:30 – 4:00	**Q & A Session, Next Steps and Closing** | *Grant Steering Committee*

PROJECT PARTNERS

North Central State College | The Ohio State University | Ohio Dominican University | OhioLINK Ohio's Academic Library Consortium | OACC

APPENDIX F: COURSE PROJECT PROPOSAL TEMPLATE

Scope of Work:

Project Information

Description

The goal of the Ohio OER Grant project is to reduce textbook costs for college students throughout the state of Ohio. Content teams will review existing open content, create new content where needed, and share the results on the Affordable Learning Ohio website beginning in December 2018. This document articulates the team's proposal to develop content *beyond the core deliverables* (content map and Quick Adoption Guide).

Project Timeline

MILESTONE	TIMELINE
Content Team Kick-Off Meetings	May 14 – 18, 2018
Bootcamp	June 6, 2018
Learning Objectives due *(core deliverable)*	June 22, 2018
Team Content Review	June – December 2018
Scope of Work Due	July 27, 2017
Quick Adoption Guide Work *(core deliverable)*	June – December 2018
Optional Special Project 1	July – October 2018
Optional Special Project 2	August – November
Optional Special Project 3 *(Test bank)*	September – December
Final Quick Adoption Guide due *(core deliverable)*	December 19, 2018

Monthly Meeting Schedule and Stakeholders:

The Content Team will meet remotely once every month, June - December. The Team Lead will meet bi-weekly with the grant project manager. List team members and meeting schedule here.

Special Project

Fill out a separate Special Project plan for each special project, up to a total of four.

Describe the project and its alignment with the course objective(s):
What is the justification for this project (i.e. were you unable to find resources for this topic, are the available resources unsatisfactory?)
Which member(s) of the team will complete this project?
What, if any, additional resources are needed to complete this project? Does this project require coding, graphic design, video production resources, assistance from subject matter experts or librarians, etc.? What are the next steps for obtaining this level of support?
What does success look like for this project (what would make the project complete and how will you measure its success)?

COMPENSATION TOTALS

Name/Role:	Base Pay:	Special Project 1	Special Project 2	Special Project 3	Special Project 4	Total

APPENDIX G: RFP — ADOPTION MINI-GRANT AWARDS

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REQUEST FOR PROPOSALS
Adoption Mini-Grant Awards

SUBMIT PROPOSALS HERE:
Partnering-Institution Award
[LINK HERE]
Consortium Award
[LINK HERE]

Date of Release: March 14, 2019
Accepting proposals through: October 15, 2019

PURPOSE
The Ohio Open Ed Collaborative (OOEC) is offering mini-grant awards to recognize the efforts of Ohio higher education institutions that have participated in the project and to help promote adoption of OOEC course packages throughout the state. Successful awards will implement OOEC course packages and reduce the current cost of textbooks for students.

BACKGROUND
The OOEC is funded through the Ohio Department of Higher Education's Innovation Grant with the goal of supporting the development and adoption of Open Educational Resources (OER) in an effort to reduce the cost of textbooks for students. The project is led by North Central State College in collaboration with Ohio State University, Ohio Dominican University, OhioLINK and the Ohio Association of Community Colleges representing an additional 15 community colleges. Members from grant partners construct the OOEC steering committee. Work has been funded through July 2020.

Teams of faculty and librarians have been creating, curating, and reviewing 23 OER courses: 22 primarily high-enrollment courses mapped to Ohio Transfer Module (OTM) and Transfer Assurance Guide (TAG) objectives, and one upper-level math course that is not TAG/OTM. OOEC course packages, with OTM and TAG designations, include the following:

Available now:
- American Government (OSS 011)
- Calculus 1 (TMM 005)
- Calculus 2 (TMM 006)
- First Writing Course (TME 001)
- Intro to Psychology (OSS 015)
- Intro to Sociology (OSS 021)
- Linear Algebra (OMT 019)
- Macroeconomics (OSS 005)
- Statistics (TMM 010)
- Second Writing Course (TME 002)

Available in Fall 2019:
- Abstract Algebra (non-TAG course)
- American History 1 (OHS 043)
- Biology 1 (OSC 003)
- Biology 2 (OSC 004)
- College Algebra (TMM 001)
- Early Childhood Math Education (TAG under development)
- Intro to Ethics (OAH 046)
- Manufacturing Processes (OET 010)
- Microeconomics (OSS 004)
- Middle Childhood Math Education (TAG under development)
- Ordinary Differential Equations (OMT 020)
- Pre-Calculus (TMM 002)
- Public Speaking (OCM 013)

To access OOEC course packages and learn more about the project, visit https://ohiolink.oercommons.org/hubs/OOEC.

TYPES OF AWARDS & ELIGIBILITY
There are two types of awards: partnering-institution awards and consortium awards.

1. **Partnering-Institution Awards:** Each institution who signed onto the Innovation Grant project as a partner college/university is eligible for a Partnering-Institution Award. This includes: Ohio Dominican University, Ohio State University, Central Ohio Technical College, Clark State Community College, Columbus State Community College, Edison State Community College, Hocking College, Lakeland Community College, Lorain County Community College, Marion Technical College, North Central State College, Northwest State Community College, Rhodes State College, Sinclair

Community College, Southern State Community College, Stark State College, Terra State Community College, and Washington State Community College. Each of the aforementioned partner institutions are guaranteed one award up to $6,000 with completion of the criteria found in this RFP and sign-off by the OOEC steering committee, based on availability of funds.

2. **Consortium Awards:** Two or more Ohio institutions are collectively eligible to apply for an award up to $15,000 depending on the scale of the project. To be considered for a consortium award, at least one institution must be identified as a project partner institution (see above list). Other types of Ohio institutions that may apply include: public 2-year colleges, public 4-year colleges/universities, public regional branch campuses, and private 4-year colleges/universities. The OOEC steering committee will fund a minimum of two consortium awards, based on available funds and the proposals submitted.

SCOPE OF WORK

Proposals should support one or more of the following goals:

- Spread adoption of OOEC course packages across a variety of subject areas at the institution
- Reach a significant number of students
- Develop and promote best practices in the adoption of OOEC course packages
- Foster instructional design innovations

Upon conclusion, funded projects will submit a report that addresses adoption outcomes, metrics and impact, and best practices. These reports will be used as a case study to help faculty adoption throughout the state. Templates will be provided.

EXAMPLES OF FUNDED AWARDS

Funded awards should encourage adoption of OOEC course materials and could employ a combination of strategies including:

- Evaluation of OOEC course materials to review, modify, and/or expand OOEC course packages to meet institutional teaching and learning needs
- Support College Credit Plus (CCP) partnerships to adopt OOEC course packages in CCP courses
- Instructional design support to develop OOEC course packages to meet institutional teaching and learning needs
- Faculty/librarian training to use and adopt OOEC course packages
- Supplement other OER related projects in an effort to adopt OOEC course packages
- Other innovative ideas to support OOEC course package implementation

SUBMISSION REQUIREMENTS

The OOEC steering committee is funding projects to implement OOEC courses. Please note that because OOEC courses are designed as modules, content can be adopted in full or part. The goal is to reduce costs of current textbooks and supplemental materials. Applicants must submit the following:

1. Institutional cover letter signed by the provost/chief academic officer supporting the proposal and commitment to the activities outlined in the proposal.
2. Online application that addresses the following:
    - Goals: List the specific objectives for the project. Specific aims should refer to outcomes or changes at the institution(s) that increase OOEC course adoption and reduction of student textbook and supplemental material costs.
    - Project Description: Address the steps, activities, and action plan that will be implemented in order to adopt OOEC course(s). How will you develop and promote best practices for OOEC course adoption?
    - Budget and narrative: List the proposed activities and funding levels. Identify how funds will be spent. Will other sources of funding and/or any in-kind contributions be included? If so, please explain.
    - Metrics and Impact: Include the estimated number of courses/sections to be taught using OOEC materials, savings in cost of textbooks/supplemental materials, estimated number of students in each course/section, and number of faculty using OOEC materials.
    - Key Personnel: Identify a project lead who will oversee work related to the project and serve as the institutional contact throughout the duration of the award. Identify any other key personnel (i.e. faculty, staff, librarians, instructional designers, etc.) or general departments who will be engaged in the project.
    - Projected Timeline: List the steps needed to complete the project and timeframe to do so. Funded projects must conclude work no later than May 2020. See the below timeline for more information.

Proposals must be submitted through the following links to be considered by the OOEC steering committee.

1. **Partnering-Institution Award:** [LINK HERE]
2. **Consortium Award:** [LINK HERE]

SELECTION CRITERIA

Upon submission, the OOEC steering committee will review proposals and assess based on the type of award:

1. **Partnering-Institution Award:** The OOEC steering committee will look for coherence in the proposal's scope of work and evaluate feasibility of proposed activities within timeline and budget. If the proposal meets these guidelines and is submitted by one of the 18 partner institutions, then the OOEC will award funds with sign off by OOEC steering committee.

2. **Consortium Award:** The OOEC steering committee will evaluate proposals with the following criteria:
    - Alignment: How well do the goals address implementation of OOEC course packages? How do the proposed goals address the goals outlined in the RFP scope of work?
    - Action Plan: How well defined is the action plan? How closely tied is the action plan with the stated goals? How well will potential best practice be addressed and promoted?
    - Likelihood of Success: How feasible is the project in terms of time, budget requests, and available resources?

North Central State College, the OOEC project lead and fiscal agent, will be responsible for administering grant agreements and funds, as well as managing each award. The Ohio Association of Community Colleges will assist with coordinating proposals, award communication, and final reporting.

Please note that Consortium Award applications will not be reviewed and selected until after the final deadline for proposals on October 15, 2019.

TIMELINE

Application and Review Period:

- RFP is released: March 14, 2019
- Proposal Review by OOEC Steering Committee: starting April 15, 2019 and ongoing for Partnering-Institution Awards; starting October 2019 for Consortium Awards
- Notifications to Institutions: starting May 2019 for Partnering-Institution Awards (ongoing based on RFP submission date); starting late October 2019 for Consortium Awards
- Final Deadline for Proposals: October 15, 2019

Project Reporting:

- Project Reports Due: October 1, 2019, February 1, 2020 and June 1, 2020.

Please note all project activity must be completed by May 2020; invoice for consortium awards must be submitted by June 1, 2020.

QUESTIONS?

Please contact [CONTACT INFORMATION HERE]

APPENDIX H: ADOPTION MINI-GRANT APPLICATION

OHIO Open Ed COLLABORATIVE
ADOPT + SHARE + CREATE + LEAD

Ohio Open Ed Collaborative Mini-Grant Award Application for Partnering-Institutions

Partnering-Institution Proposals

Each institution that signed onto the Innovation Grant project as a partner college/university is eligible for one Partnering-Institution Award of up to $6,000 based on availability of funds.

Partner-institutions include: Ohio Dominican University, Ohio State University, Central Ohio Technical College, Clark State Community College, Columbus State Community College, Edison State Community College, Hocking College, Lakeland Community College, Lorain County Community College, Marion Technical College, North Central State College, Northwest State Community College, Rhodes State College, Sinclair Community College, Southern State Community College, Stark State College, Terra State Community College, and Washington State Community College.

* 1. Partner Institution:

* 2. Project Lead/Institutional Contact:

Name	
Title	
Email Address	
Phone Number	

* 3. Amount requested ($6,000 maximum):

* 4. OOEC courses to be implemented in full or in part:

- [ ] Abstract Algebra (non TAG course)
- [ ] American Government (OSS 011)
- [ ] American History 1 (OHS 043)
- [ ] Biology 1 (OSC 003)
- [ ] Biology 2 (OSC 004)
- [ ] Calculus 1 (TMM 005)
- [ ] Calculus 2 (TMM 006)
- [ ] College Algebra (TMM 001)
- [ ] Early Childhood Math Education (TAG under development)
- [ ] First Writing Course (TME 001)
- [ ] Intro to Ethics (OAH 046)
- [ ] Intro to Psychology (OSS 015)
- [ ] Intro to Sociology (OSS 021)
- [ ] Linear Algebra (OMT 019)
- [ ] Macroeconomics (OSS 005)
- [ ] Manufacturing Processes (OET 010)
- [ ] Microeconomics (OSS 004)
- [ ] Middle Childhood Math Education (TAG under development)
- [ ] Ordinary Differential Equations (OMT 020)
- [ ] Pre-Calculus (TMM 002)
- [ ] Public Speaking (OCM 013)
- [ ] Second Writing Course (TME 002)
- [ ] Statistics (TMM 010)

* 5. Goals: List the specific objectives for the project. Refer to outomes or changes at the institution that increase OOEC course adoption and reduction of textbook and supplemental material costs.

* 6. Project Description: Address the steps, activities and action plan that will be implemented in order to adopt OOEC course(s). How will you develop and promote best practices for OOEC course adoption?

* 7. Key Personnel: Identify additional key personnel (i.e. faculty, staff, librarians, instructional designers, etc.) or general departments who will be engaged in the project.

* 8. Estimated number of students to be impacted within one year:

* 9. Estimated number of course sections adopting OOEC materials within one year:

* 10. Estimated cost savings to students in textbooks and supplemental materials within one year:

* 11. Estimated number of faculting adopting OOEC materials within one year:

* 12. Budget Narrative: Describe how the funds will be spent.

Budget Activity 1:	
Budget Activity 2:	
Budget Activity 3:	
Budget Activity 4:	
Budget Activity 5:	

13. Additional Sources of Funding: Identify if other sources of funding or in-kind contributions will be included and specify amounts.

In-Kind Funding:	
Additional Funding:	

* 14. Project Timeline: Note, funded projects must conclude work no later than May 2020.

Start Date:	
End Date:	

* 15. Project Plan: List the steps needed to complete the project.

* 16. Upload a letter of support from the Provost or Chief Academic Officer as a PDF or Word document.

Choose File | Choose File | No file chosen

OHIO Open Ed COLLABORATIVE
ADOPT + SHARE + CREATE + LEAD

Ohio Open Ed Collaborative Mini-Grant Award Consortium Application

Consortium Proposals

Two or more Ohio institutions are collectively eligible to apply for an award up to $15,000 depending on the scale of the project. To be considered for a consortium award, at least one institution must be identified as a project partner institution (see list below). Other types of Ohio institutions that may apply include: public 2-year colleges, public 4-year colleges/universities, public regional branch campuses, and private 4-year colleges/universities. The OOEC steering committee will fund a minimum of two consortium awards, based on available funds and the proposals submitted.

Project Partner Institutions: Ohio Dominican University, Ohio State University, Central Ohio Technical College, Clark State Community College, Columbus State Community College, Edison State Community College, Hocking College, Lakeland Community College, Lorain County Community College, Marion Technical College, North Central State College, Northwest State Community College, Rhodes State College, Sinclair Community College, Southern State Community College, Stark State College, Terra State Community College, and Washington State Community College

* 1. Project Partner Institution(s):

- [ ] Central Ohio Technical College
- [ ] Clark State Community College
- [ ] Columbus State Community College
- [ ] Edison State Community College
- [ ] Hocking College
- [ ] Lakeland Community College
- [ ] Lorain County Community College
- [ ] Marion Technical College
- [ ] North Central State College
- [ ] Northwest State Community College
- [ ] Ohio Dominican University
- [ ] Ohio State University
- [ ] Rhodes State College
- [ ] Sinclair Community College
- [ ] Southern State Community College
- [ ] Stark State College
- [ ] Terra State Community College
- [ ] Washington State Community College

* 2. Enter up to 8 additional Ohio institutions: Other types of Ohio institutions that may apply include: public 2-year colleges, public 4-year colleges/universities, public regional branch campuses, and private 4-year colleges/universities.

Institution 1:	
Institution 2:	
Institution 3:	
Institution 4:	
Institution 5:	
Institution 6:	
Institution 7:	
Institution 8:	

* 3. Project Lead/Institutional Contact:

Name	
Title	
Email Address	
Phone Number	

* 4. Amount requested ($15,000 maximum):

* 5. OOEC courses to be implemented in full or in part:

- [ ] Abstract Algebra (non TAG course)
- [ ] American Government (OSS 011)
- [ ] American History 1 (OHS 043)
- [ ] Biology 1 (OSC 003)
- [ ] Biology 2 (OSC 004)
- [ ] Calculus 1 (TMM 005)
- [ ] Calculus 2 (TMM 006)
- [ ] College Algebra (TMM 001)
- [ ] Early Childhood Math Education (TAG under development)
- [ ] First Writing Course (TME 001)
- [ ] Intro to Ethics (OAH 046)
- [ ] Intro to Psychology (OSS 015)
- [ ] Intro to Sociology (OSS 021)
- [ ] Linear Algebra (OMT 019)
- [ ] Macroeconomics (OSS 005)
- [ ] Manufacturing Processes (OET 010)
- [ ] Microeconomics (OSS 004)
- [ ] Middle Childhood Math Education (TAG under development)
- [ ] Ordinary Differential Equations (OMT 020)
- [ ] Pre-Calculus (TMM 002)
- [ ] Public Speaking (OCM 013)
- [ ] Second Writing Course (TME 002)
- [ ] Statistics (TMM 010)

* 6. Goals: List the specific objectives for the project. Refer to outomes or changes at the institution that increase OOEC course adoption and reduction of textbook and supplemental material costs.

* 7. Project Description: Address the steps, activities and action plan that will be implemented in order to adopt OOEC course(s). How will you develop and promote best practices for OOEC course adoption?

* 8. Key Personnel: Identify additional key personnel (i.e. faculty, staff, librarians, instructional designers, etc.) or general departments who will be engaged in the project.

* 9. Estimated number of students to be impacted within one year:

* 10. Estimated number of course sections adopting OOEC materials within one year:

* 11. Estimated cost savings to students in textbooks and supplemental materials within one year:

* 12. Estimated number of faculting adopting OOEC materials within one year:

* 13. Budget Narrative: Describe how the funds will be spent.

Budget Activity 1:	
Budget Activity 2:	
Budget Activity 3:	
Budget Activity 4:	
Budget Activity 5:	

14. Additional Sources of Funding: Identify if other sources of funding or in-kind contributions will be included and specify amounts.

In-Kind Funding:

Additional Funding:

* 15. Project Timeline: Note, funded projects must conclude work no later than May 2020.

Start Date:

End Date:

* 16. Upload a project plan in Word or PDF form, not to exceed two pages, listing the steps needed to complete the project including key milestone dates.

Choose File | Choose File | No file chosen